2003-03

A qualitative examination of the administrative process of fleet enlisted personnel in various medical categories

Weatherford, Lenora B. P.

Monterey, California. Naval Postgraduate School

NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

A QUALITATIVE EXAMINATION OF THE ADMINISTRATIVE PROCESS OF FLEET ENLISTED PERSONNEL IN VARIOUS MEDICAL CATEGORIES

by

Lenora B.P. Weatherford

March 2003

Co-Advisors: Stephen L. Mehay
William D. Hatch II

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	March 2003	Master's Thesis

4. TITLE AND SUBTITLE A Qualitative Examination of the Administrative Process of Fleet Enlisted Personnel in Various Medical Categories

5. FUNDING NUMBERS

6. AUTHOR (S) Weatherford, Lenora B.P.

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
Naval Postgraduate School
Monterey, CA 93943-5000

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the U.S. Department of Defense or the U.S. Government.

12a. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

13. ABSTRACT ***(maximum 200 words)*** The purpose of this research is to examine the medical management process of placing and monitoring active duty fleet enlisted personnel in a temporary medical duty status and its impact on fleet readiness. Due to the variety of medical categories this research focuses primarily on personnel placed in Temporary Limited Duty and Medical Hold. Personnel in medical status "limbo" decrease readiness and cost the Navy millions of personnel dollars each year. The study highlights improvements in communication, education and training at all levels of the organization based on observations from the fleet and medical communities. This research is intended to provide stakeholders with a matrix for decision-making and provide guidance on the various temporary medical status categories and recommends design changes to the current Temporary Limited Duty Process.

14. SUBJECT TERMS Temporary Limited Duty, TLD, Limited Duty, LIMDU, Medical Hold, MedHold, Medical Readiness, Readiness, Redesign, Transients, IA, TPPH, End Strength

15. NUMBER OF PAGES 120

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UL

NSN 7540-01-280-5500 **Standard Form 298 (Rev. 2-89)**
Prescribed by ANSI Std. 239-18

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release; distribution is unlimited.

A QUALITATIVE EXAMINATION OF THE ADMINISTRATIVE PROCESS OF FLEET ENLISTED PERSONNEL IN VARIOUS MEDICAL CATEGORIES

Lenora B. P. Weatherford
Lieutenant, Medical Service Corps
United States Naval Reserve
B.S., New Hampshire College, 1997

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
March 2003

Author: Lenora B.P. Weatherford

Approved by: Stephen L. Mehay
Thesis Co-Advisor

William D. Hatch II
Thesis Co-Advisor

Douglas A. Brook, Ph.D.
Dean, Graduate School of Business
and Public Policy

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

The purpose of this research is to examine the medical management process of placing and monitoring active duty fleet enlisted personnel in a temporary medical duty status and its impact on fleet readiness. Due to the variety of medical categories this research focuses primarily on personnel placed in Temporary Limited Duty and Medical Hold. Personnel in medical status "limbo" decrease readiness and cost the Navy millions of personnel dollars each year. The study highlights improvements in communication, education and training at all levels of the organization based on observations from the fleet and medical communities. This research is intended to provide stakeholders with a matrix for decision-making and provide guidance on the various temporary medical status categories and recommends design changes to the current Temporary Limited Duty Process.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

LIST OF FIGURES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS

ACC	Accounting Category Code
ACC 100	Permanent assignment for duty
ACC 105	Limited Duty where assignment restricted for medical reasons
ACC 320	Temporary Duty for Further Assignment
ACC 355	Temporary Duty Awaiting Formal Medical Board/Physical Evaluation Board Proceedings
ACC 371	Temporary Duty under Treatment – Medical Holding Company
AI	Awaiting Instruction
BA	Billets Authorized
BSC	Balanced Scorecard
BMC	Branch Medical Clinic
BUMED	Bureau of Medicine and Surgery
BUPERS	Bureau of Naval Personnel
CA	Convening Authority
CHCS	Composite Health Care System
CMC	Commandant of the Marine Corps
CNO	Chief of Naval Operations
CNP	Chief of Naval Personnel
CO	Commanding Officer
DES	Disability Evaluation System
DoD	Department of Defense
DOPMA	Defense Officer Personnel Management Act
ECM	Enlisted Community Manager
EPA	Enlisted Programmed Authorizations
EPMAC	Enlisted Placement Management Center
ES	End Strength
FFD	Fit for Duty
FYDP	Future Years Defense Program
GMO	General Medical Officer
ICD-9	International Classification of Diseases
IA	Individuals Account
IDC	Independent Duty Corpsman

LIMDU	Limited Duty
LODD	Line of Duty Determination
LODI	Line of Duty Investigation
MANMED	Manual of the Medical Department
MCA	Manning Control Authority
MEDHOLD	Medical Hold
MHC	Medical Holding Company
MHS	Military Healthcare System
MTF	Medical Treatment Facility
MPN	Manpower Personnel Navy
MPT	Manpower, Personnel and Training
NAVMAC	Navy Manpower Analysis Center
NAVMED 6100/5	Abbreviated Limited Duty Medical Board Report (LIMDU report)
NP	Nurse Practitioner
OCM	Officer Community Manager
OIC	Officer In Charge
OPA	Officer Programmed Authorizations
PA	Physician’s Assistant
PAD	Patient Administration Department
PEB	Physical Evaluation Board
PERS-821	Navy Personnel Command Limited Duty Section
POM	Program Objective Memorandum
PPBS	Planning, Programming, and Budgeting System
PSA	Personnel Support Activity
PSD	Personnel Support Detachment
SF 513	Consultation Sheet
SF 600	Chronological Record of Medical Care
SIQ	Sick in Quarters
SRB	Selective Reenlistment Bonus
TERA	Temporary Early Retirement Authority
TFMMS	Total Force Manpower Management System
TLD	Temporary Limited Duty
TPP&H	Transient, Patient, Prisoner and Holdee
TMU	Transient Monitoring Unit
TPU	Transient Personnel Unit
XO	Executive Officer

ACKNOWLEDGEMENTS

Thank you Professor Steve Mehay and CDR Bill Hatch for believing in my topic and for all your guidance and support throughout this research. I am especially grateful to have been chosen to present my research at thesis day in Washington D.C. Thanks again.

To my fellow "Manpower" classmates "Good Luck" and thanks for all the encouragement, support and late nights spent at the library and in the labs. I would not have made it without your help. I would like to especially thank Yolanda Kern and Kathy Gillard for working on a preliminary project of my choice, in order to help with my thesis research – Thanks, you are two awesome ladies.

Thank you to my family and friends who over the years have supported me in the many challenges I have faced. Most importantly, a very special thanks to my two beautiful children, Hilary Renee and Casey Lee, you both have been a constant drive for me to do more. I know each of you gave up a lot of Mom's time and picked up a lot of responsibilities at home - thank you. I also want you to know that you are two of the most precious gifts and blessing I have. I am honored to be your Mom. I love you both so very much. P.S. Remember who you are!

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

A. OVERVIEW

This thesis evaluates the procedures, processes and management of active duty enlisted personnel placed in a temporary medical duty status as part of the Transient, Patient, Prisoner, and Holdee (TPP&H) account. Various issues will be researched and stakeholders interviewed to explore how the management of individuals in temporary medical status impact fleet readiness. The research will address current policy and monitoring of personnel placed in a Temporary Limited Duty (TLD) status and recommended alternative policies for the management of personnel placed on medical TLD will be outlined and discussed. Throughout this research the terms servicemember and personnel will refer to active duty Navy enlisted personnel.

B. BACKGROUND AND REASONS FOR STUDY

On July 21, 2000 Admiral Vern Clark became the 27th Chief of Naval Operations (CNO). As CNO, he is the principle advisor to the President and the Secretary of the Navy on the conduct of war and ultimately responsible for the efficient use of all operating forces and shore establishments and a member of the Joint Chief of Staff. Admiral Clark's guidance for the year 2002 was a list of "Top Five" priorities "intended to help our Naval establishment focus as an organization on the issues most critical to our sustained success."[1] The "Top Five" priorities are: Manpower, Current Readiness, Future

[1] CNO guidance for 2002, "Top Five Priorities." www.chinfo.navy.mil, November 2002.

Readiness, Quality of Service and Alignment. In his initial address to the forces he stated:

> Manpower is, and will remain, our Navy's biggest challenge…[and] We must create an environment that offers opportunities, encourages participation, and is conducive to personal and professional growth. This is the first time in history that our Navy has faced a prolonged conflict with an All Volunteer Force (AVF), and we must protect the integrity of our Fleet.[2]

Each year billions of scarce Manpower Personnel Navy (MPN) dollars are spent on transient personnel trained with specific skills who are not in the right place contributing to fleet readiness. Additionally, the accounting of these personnel and the loss of productive work to fleet units and shore facilities compound the manpower expense in support of fleet units. Medical Treatment Facilities (MTF) along with other commands "Must make every effort to move individuals through the Transient Pipeline to return critically needed personnel to the fleet or separate them from the Navy in an expeditious manner." [3]

An active duty service member's state of health directly impacts fleet readiness. Personnel assigned to operational units who are unable to deploy cause manning shortages. The Department of the Navy utilizes two administrative processes to manage active duty servicemembers in the United States Navy who are unable to perform their assigned military duties for medical reasons. The two processes are the Disability Evaluation System (DES) and the Temporary Limited Duty (TLD) process.

---

[2] Ibid.

[3] *Transient Personnel Administration Manual*, EPMACINST 5000.3D.

Previous research by Lieutenant Commanders Keenan and Wilkens, (1998) titled "Disability Evaluation System and Temporary Limited Duty Assignment Process: A Qualitative Review" analyzed the strengths and weaknesses of the TLD assignment and DES processes in order to determine if the processes where meeting their objectives. Their research also identified contributing factors to the amount of time a service member spends in a transient and limited duty status and recommended further evaluation of current policies that drive these processes and the management of the transient and TLD population.[4]

In addition to these two processes there are other management programs used to place injured or incapacitated personnel for a specified period of time in a temporary medical status for healing purposes. Additional types of temporary medical status categories include: light duty; Sick in Quarters (SIQ); and Medical Hold. These temporary medical duty status categories are serial and feed into one other. Each requires coordination and management to ensure that personnel return to full duty status to minimize their impact on fleet readiness.

Healthcare providers under the direction of the Bureau of Medicine and Surgery (BUMED) are responsible for the management and placement of servicemembers in a temporary medical duty status. For the purpose of this research Healthcare providers are defined as Independent Duty Corpsman (IDC), Physician Assistants (PA), Nurse Practioners (NP), Medical Service Corps clinical care

[4] Keenan, M. Debra and Wilkins, Gail M., *Disability Evaluation System and Temporary Limited Duty Assignment Process: A Qualitative Review.* Master's Thesis., Naval Postgraduate School, Monterey, California, March 1998.

specialist such as a Clinical Psychologist (CP) and Medical Officers, are categorized as General Medical Officers (GM0), Family Practice Physicians (FP) and Medical Officers with a specialty (e.g., Orthopedic Surgeon, Neurologist and Psychiatrist). Personnel who are placed in these medical duty status categories are monitored at local Military Treatment Facilities (MTF), Branch Medical Clinics (BMC), fleet medical departments, and managed at Personnel Support Activity Detachments (PSA/PSD) and Transient Personnel Units (TPU). The administrative processes for individuals in a temporary medical status are validated and tracked by the Bureau of Naval Personnel (BUPERS-821) and the Enlisted Placement Management Center (EPMAC), Transient, Patient Prisoner and Holdee Program (TPPH) Account Management (EP-48) for the Navy.

The severity of the illness or injury determines what status the healthcare provider places a service member. Placement in a Temporary Limited Duty status is accomplished by a credentialed specialty healthcare provider (e.g. Orthopedics or Internal Medicine) and is usually determined after careful examination. The medical officer will usually place some physical limitations or restrictions on the kinds of work service members can accomplish and a specified period to facilitate healing and return the service member to full duty.[5] The specified period of TLD shall be the number of months needed to correct the incapacity or condition, applying generally accepted medical standards of practice.

[5] Bureau of Medicine and Surgery, *Manual of the Medical Department*, Chapter 18, pp. 18-4, 10 September 1993.

Current policy states that a service member will be placed in a TLD status for an initial period of at least eight months and not to exceed 16 months. An extension will be considered upon re-evaluation of the condition.[6] If additional time is required to correct the incapacity or condition a request for a second period of Temporary Limited Duty will be submitted to BUPERS-821 for final approval based on a medical evaluation. A second request of TLD is called a Departmental Review.

Keenan and Wilkens determined that the DES and TLD processes are complicated by numerous factors impacting the effective flow of cases through the two systems and recommended further review in the following areas: repeat LIMDU reevaluation requests and missed appointments; official policy development for use of the Abbreviated Temporary Limited Duty Medical Board report; possible Medical Board Tracking System (MBTS) updates to incorporate tracking of personnel placed in a LIMDU and Med Hold status; and development of a structured matrix to facilitate communication and display shared responsibility roles and ownership.[7]

One of the biggest challenges in monitoring personnel placed in these different types of temporary medical duty status categories is the ability to effectively manage personnel to ensure follow-up appointments are kept.

Improper accounting of personnel in the Individuals Account (IA) leads to incorrect reporting of manpower

[6] www.vnh.org/GMO/Admin/limduboard, November 2002.

[7] Keenan, M. Debra and Wilkins, Gail M., *Disability Evaluation System and Temporary Limited Duty Assignment Process: A Qualitative Review*, Master's Thesis, Naval Postgraduate School, Monterey, California, March 1998.

numbers that is used in predicting future manpower requirements. Accounting and reporting problems impact fleet readiness.

C. RESEARCH QUESTIONS

1. Primary Research Question

How does management of personnel placed in a medical status category impact fleet readiness?

2. Secondary Research Questions

Who are the stakeholders of the various temporary medical status categories?

What impacts or effects do the different types of temporary medical status categories have on one another?

What education and training tools are available to administrators in the management of these temporary medical status categories?

D. SCOPE, LIMITATIONS AND ASSUMPTIONS

Scope: The scope of this research will include: (1) a review of the TPP&H management process and TPU; (2) a review of the TLD management process; (3) identification and examination of program and Navy stakeholders; and (4) recommendations for changes and alternatives to the placement and monitoring of personnel in one of these medical status categories based on research findings.

Limitations: Data was gathered through interviews and procedural guidelines obtained to best qualify and quantify the management of Active Duty Enlisted personnel placed in a temporary duty status due to various medical conditions. A large percentage of information on these programs came

from telephone interviews, E-mail correspondence, directives and personal interviews.

Assumptions: This thesis assumes the reader has a basic familiarity with the terminology and administrative aspects used in the management of the different types of temporary medical duty status categories.

E. BENEFIT OF THE STUDY

This research will develop and provide a matrix to assist medical and fleet activities to better understand the steps involved in placing personnel in the different types of medical duty status categories. It will discuss the feasibility of redesign and recommend alternatives in the management of personnel placed in a temporary medical status while assigned to the TPP&H account. It will serve as a starting point for medical commands and personnel offices to develop and implement a more effective and efficient tracking system for personnel placed in this category.

F. ORGANIZATION OF THIS THESIS

The methodology used in this thesis research consisted of the following steps:

1. A literature review of current directives, books, articles, previous studies and other library information resources;
2. A thorough review of the current Light Duty, Sick in Quarters, Medical Hold and Temporary Limited Duty process;

3. A thorough review of current force readiness structure and planning criteria;

4. Interviews and correspond with personnel involved in the Temporary Limited Duty and TPP&H process;

5. Interviews with local Patient Administration Department personnel, LIMDU Coordinators, Personnel Officers (PSD or PSA) and Transient Personnel Units (TPU) at local Military Treatment Facilities and Personnel Support Activities and or Detachments;

6. Interviews and correspondence with personnel involved in the Light Duty, Sick in Quarters, Medical Holding Company and Temporary Limited Duty management process;

7. Examined current tracking mechanisms and paperwork used in the management of Light Duty, Sick In Quarters, Medical Hold and Temporary Limited Duty process;

8. An evaluation identifying strengths and weaknesses of the current process; and

9. Recommendations and alternatives to the current process.

G. CHAPTER SUMMARY

Navy personnel are our greatest assets and due to commitments and current events around the world it is imperative to keep our active duty force healthy and fit. Organizations involved in the management of personnel who are not fit for full duty must work together to achieve a

more effective and efficient process. Admiral Clark stated the following regarding organizations:

> Our organizations should function, as they were intended and achieve their objectives. That means that they have to be working correctly, and people need to be doing the right things. An organization in alignment must constantly be evaluating its output in terms of a whole series of activities. You cannot tell if you are in alignment until you analyze your output. This is an area in which we need to improve.[8]

Efficient organization and management of the current process is a key stepping stone in properly aligning these various types of temporary medical status categories that impact fleet readiness.

[8]CNO "Top Five Priorities." http://www.chinfo.navy.mil/navpalib/cno/cno-top5align.html, November 2002.

THIS PAGE INTENTIONALLY LEFT BLANK

II. LITERATURE REVIEW

A. OVERVIEW

In the broadest sense military readiness can be defined as the ability to make ready, or in other words, prepared for war or operations other than war. Richard K. Betts expounds on military readiness through analogies of various military encounters over the past 75 years and states:

> The different dimensions of readiness are extremely difficult to balance because no one knows exactly when a crisis will erupt or when it will reach the turning point at which either the opponent will back down or confrontation will give way to combat.[9]

In his book, Betts speaks of medical readiness in the sense of having the correct equipment at the required time in order to perform the appropriate procedure. Even though this issue is relevant and pertinent to Navy Medicine, it is more a medical preparedness issue instead of a medical readiness of personnel issue, which is the focus of this research.

This chapter will review the literature pertaining to Navy and fleet readiness goals regarding fleet expectations of Navy Medicine in supporting personnel who are placed in a temporary medical duty status category. Secondly, an overview of the Department of Defense's (DoD) view of military healthcare and readiness will be presented as will a review of Navy Medicine's strategy for medical readiness.

---

[9] Betts, Richard K., *Military Readiness: Concepts, Choices, Consequences*. Pp. 5, Brookings Institution, 1995.

Figure 1 below displays a broad overview of the Navy Organization, which includes BUMED and the Fleet and Shore Establishments.

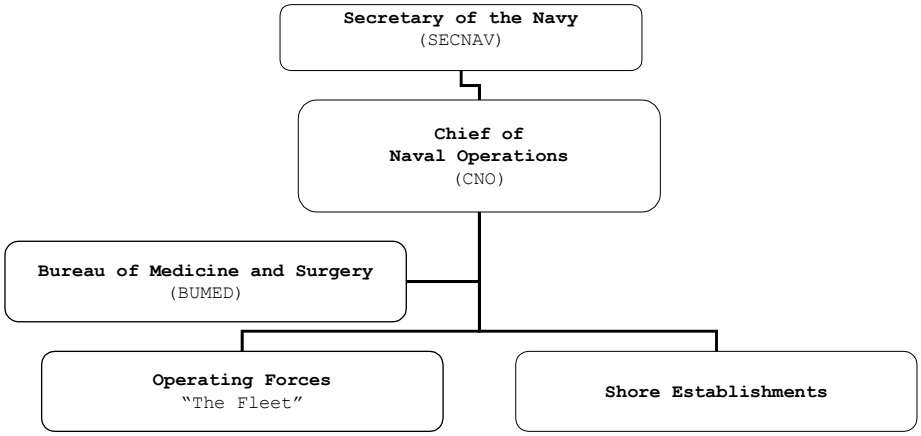


Figure 1. Navy Organization Overview

B. OPERATING FORCES AND READINESS

In 2000, the Navy delivered its posture statement with an emphasis placed on the nation's changing security environment. Today the Navy is faced with an increased interest in supporting national security and with the advent of the information age and the emersion of new political, economical, and technological developments, threats, and opportunities. In the midst of these developments the Navy continues to push forward toward Sea Power 21.[10] Sea Power 21 is the path the Navy has chosen to achieve a more aligned, organized and integrated Naval Force. Focus on the previously mentioned CNO's Top Five priorities of manpower, current readiness, future readiness, quality of service and organizational alignment help support the achievement of Sea Power 21.

[10] "CNO Guidance for 2003." www.navy.mil, January 2003.

The increase forward deployment of operational units includes approximately 100,000 Sailors and Marines in an effort to support the Global War on Terrorism and homeland defense.[11] These Operating Forces also known as 'the Fleet' administratively report to the Chief of Naval Operations and operationally provide naval forces and report to their respective Unified Combatant Commanders. Each operational unit have the required number of personnel onboard to deploy is critical to readiness. Personnel attached to operational units who are in a temporary medical status category reduce total personnel available for deployment. Therefore, it is vital for fleet and medical departments and commands to work together in the management and monitoring of personnel in these categories.

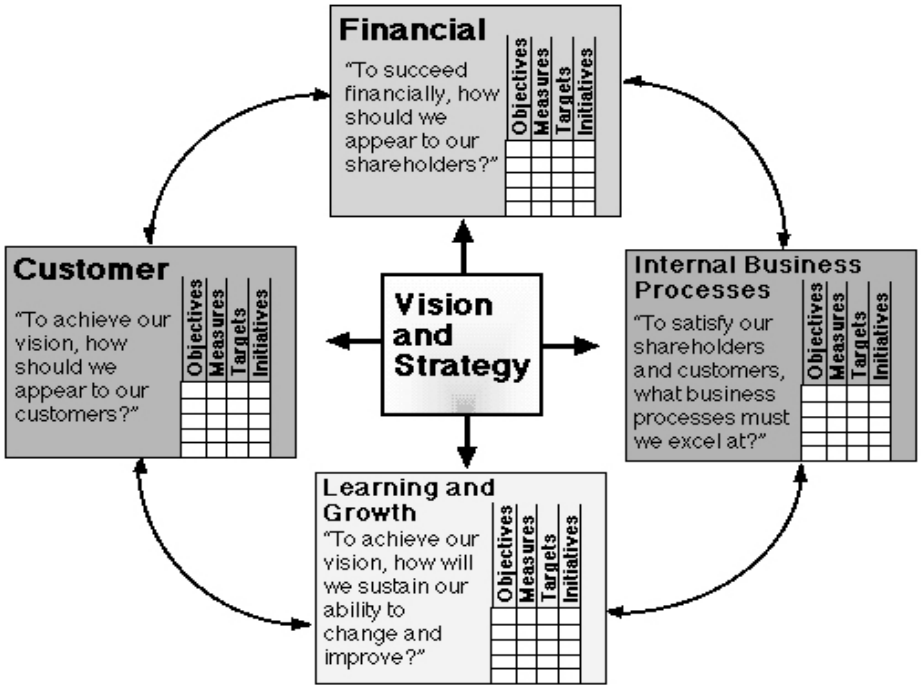
C. MILITARY HEALTHCARE SYSTEM AND READINESS

The Department of Defense (DoD) 2003 healthcare vision for the Military Healthcare System (MHS) is to have, "A world-class health system that supports the military mission by fostering, protecting, sustaining and restoring health." Their mission is "To enhance DoD and our Nation's security by providing health support for the full range of military operation and sustaining the health of all those entrusted to our care."[12] To accomplish this goal, MHS will use the Balanced Scorecard (BSC) as a tool at all levels of the organization to implement and manage the strategy set by MHS. The Balanced Scorecard is displayed graphically in Figure 2.

---

[11] Ibid.

[12] "MHS Strategic Plan." http://www.ha.osd.mil/strat_plan, January 2003.



Source From Kaplan and Norton, (1996)[13]

Figure 2. Balance Scorecard (BSC)

Dr. Robert Kaplan and Dr. David Norton developed BSC as a tool to assist organizations to put into action their vision and strategy. The scorecard in Figure 2 views the organization from four perspectives: customer; internal business processes; learning and growth and financial.[14] BSC recommends that the organization collect data and develop metrics in order for an organization to analyze itself and determine how well it is doing in the four perspectives. In addition, Figure 2 shows how the BSC incorporates a double feedback loop. This double feedback loop allows the organization to obtain feedback from both internal and external customers. MHS chose to use BSC because it enables the MHS to translate their strategy into

[13] Kaplan, R.S., and Norton, D., "Using the Balanced Scorecard as a Strategic Management System," *Harvard Business Review* (Jan-Feb 1996).

[14] "What is a Balanced Scorecard." http://www.balancedscorecard.org/basics/bsc1.html, February 2003.

operational terms while ensuring the objectives, measures and initiatives of the strategy are aligned and linked. Benefits of using the BSC tool allows and supports ongoing progression towards established objectives and a pictoral display of the MHS strategy which make it easier to communicate the overall strategy to the entire organization.

The BSC technique helps organizations translate their strategy into terms that can be easily understood, communicated, and acted upon as seen in seen in Figure 3, which displays the MHS Strategy Architecture.

Source: From MHS Strategic Plan, January 2003[15]

Figure 3. MHS Strategy Architecture

Although Figure 3 does not have the same visual layout as Figure 2 it still represents all four perspectives in the BSC.

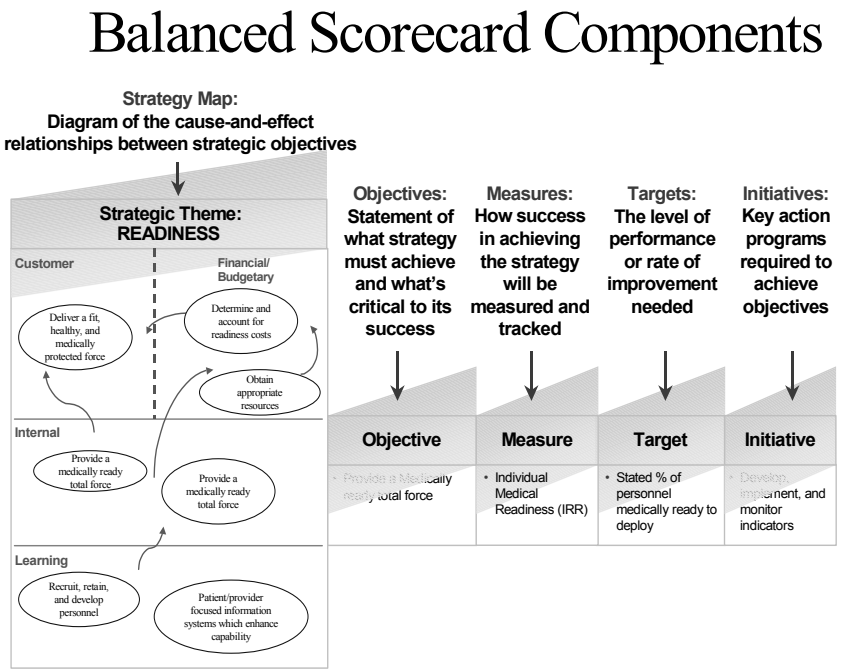
[15] "MHS Strategic Plan." http://www.ha.osd.mil/strat plan, January 2003.

The foundation of the MHS Strategy architecture as shown in Figure 3 is the learning and growth perspective. This is where the organization has to focus and provide necessary infrastructure and human capital if it wants to succeed. This is what the MHS needs to do for its internal customers in order for them to succeed in critical areas such as mentoring and training. The internal process perspective is where the organization has to identify key supporting processes for it to successfully complete its mission. MHS has three key internal processess: 1) Readiness of the fleet as well as readiness of medical personnel charged with supporting the wartime mission; 2) Quaility of the care provided to the MHS population; and 3) Efficiency of the direct and private available to them. The customer perspective represents the need for the organization to focus on services which meet the customers needs and expectations. MHS identified two key customers: the military forces, and all those entrusted to their care. The financial perspective is where the organization focuses on resource allocation and minimizing costs. MHS believes that they must be good stewards of taxpayer money and provide a visible and fully accountable financial system. Above all else MHS has a stakeholder perspective which as stated on Figure 3 is the American People.

MHS knows that to be successful in accomplishing its mission it must equip its people with the tools to help them learn and grow and build strategic cababilities that will deliver customer satisfaction within alloted financial constraints in order to achive stakeholders expectations.[16]

[16] Ibid.

The research in this thesis will focus on the internal perspective of readiness and outline the MHS BSC components set to achieve this internal perspective as shown in Figure 4.



Source: After MHS Strategic Plan (2003)[17]

Figure 4. BSC Components For Readiness

The strategy map displayed in Figure 4 shows the strategic objectives across the four perspectives through a cause and effect diagram. The objective statement specifically states what the organization is trying to achieve. The measures that are used to evaluate the plan and align the organization are listed.

Objectives and initiatives listed in Figure 5 were set for the Readiness Theme under the direction of Dr. William Winkenwerder, Jr., Assistant Secretary of Defense (Health Affairs). A strategy map was developed and is in place with assigned theme sponsors to assist in bringing about

[17] Ibid.

change necessary to achieve the objectives listed below. Figure 5 shows that the internal perspective readiness theme's objective is total force readiness. This theme acknowledges that not only is MHS responsible for ensuring total force readiness, but also each individual and specific branch of service is responsible to support and enforce this objective.

OBJECTIVES	*MEASURES*	*INITIATIVES*
Financial Determine and account for readiness costs	Cost of Readiness	Identify specific readiness relates costs and resolve any disconnects between the top down and bottom up review of financial data.
Customer Deliver a fit, healthy, and medically protected force	Individual medical readiness +Adequate (meets service regulations for deployability) +Optimal (deployable without medical intervention) -%Completeness individual database entries	Develop, implement, and monitor individual medical readiness to deploy indicators.
Internal Provide a medically ready total force		
Learning Recruit, train and develop personnel		

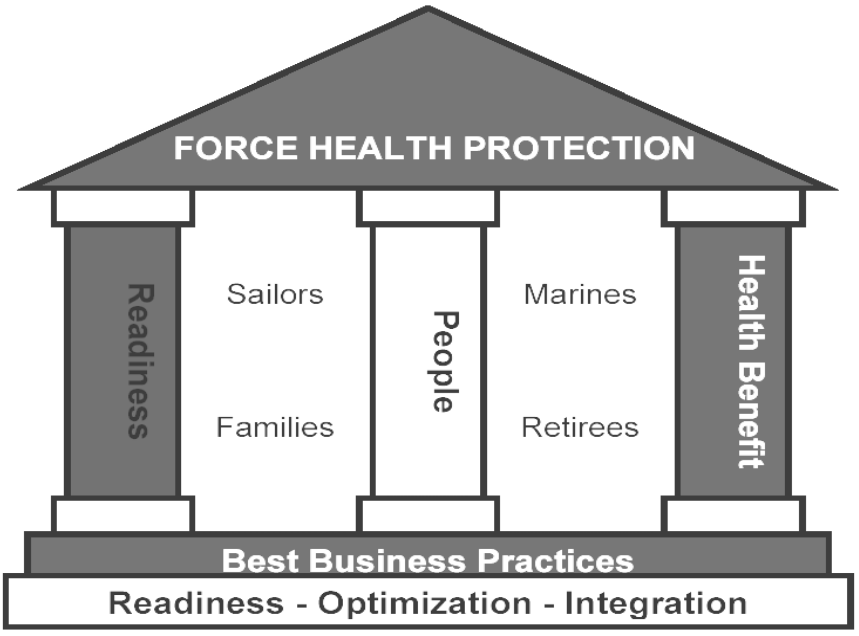
Figure 5. Readiness Theme Table

The stated objectives can be achieved through Navy direction, leadership and the support of Navy Medicine.

D. NAVY MEDICINE READINESS

Navy Medicine is aligned with the Navy and the DoD's mission for MHS through it's own mission statement of Force Health Protection which envelops the idea to, "promote,

protect and restore the health of our Sailors and Marines, families, retired veterans and all others entrusted to our care, anytime, anywhere."[18] As seen in Figure 6, Force Health Protection rests on three columns, which include readiness, people and health benefits, and is Navy Medicine's strategy to maintain readiness through the pledge that personnel will be fit and healthy and afforded access to a comprehensive healthcare system.



Source: From Navy Medicine Strategic Plan, (2003)[19]

Figure 6. Navy Medicine Strategic Structure

One of the goals under the readiness column is to "optimize the health and fitness of the total force."[20] This goal is achieved by meeting the objectives to ensure personnel are healthy and fit and returned to full duty status in a timely manner. The metric used to determine

[18] Navy Medicine Strategic Plan, www.bumed.navy.mil, January 2003.

[19] Ibid.

[20] Ibid.

Individual Medical Readiness (IMR)[21] was developed by a team of representatives from fleet Type Commanders, Headquarters Marine Corps, Medical Treatment Facilities, Naval Environmental and Health Command and Bureau of Medicine and Surgery to focus on factors that affect the readiness of personnel to deploy. The metric has four classes similar to dental readiness metrics already in place. The classes are identified as:

- Class I: Fully deployable
- Class II: Deployable, requires screening or minimal treatment en route.
  - Needs periodic physical exam or health assessment
  - Needs selected immunizations
  - Needs selected tests: HIV serology, DNA, blood type, G6PD sickle cell
- Class III: Deployable, subject to clearance by provider.
  - Health records lost or health status undocumented
  - Incomplete significant medical consultation or treatment
- Class IV: Non-deployable
  - Limited Duty Board affecting deployable status
  - Pregnant or on maternity leave
  - Hospital inpatient or on convalescent leave

Although new, these metrics will be a useful tool to track individual medical readiness of Navy and Marine Corps personnel and assist Navy Medicine personnel in achieving

[21] VADM M.L. Cowen, Surgeon General of the Navy, "Navy Surgeon General's Guidance for 2002: Steaming to Assist." 22 August 2002, www.bumed.med.navy.mil/surggen, December 2002.

the objectives stated under the readiness goal of Force Health Protection. The second column in Figure 6 identified, as "people" is necessary to accomplish all the objectives and is vital to the goals listed under this column of the Force Health Protection umbrella. These goals are to "enhance job satisfaction and career development and train to requirements."[22] One objective to enable Navy Medicine to achieve these goals is to have effective leaders at all levels to mentor Navy Medical personnel to embrace the mission, understand where they fit in the big picture and provide them with the appropriate tools required in the accomplishment of their assignment.

Navy Medicine personnel who are assigned to place or monitor personnel in one of the temporary medical status categories are trained in the various duties and responsibilities by their job assignment. In MTF's and BMC's this responsibility falls under the Patient Administration Department and for Operating Forces in the medical department. Healthcare providers such as Medical Officers, Physician Assistants (PA), Nurse Practioners (NP) and clinical Psychologist receive training and guidance regarding the various types of temporary medical duty status categories upon orientation into their assigned command. Independent Duty Corpsman (IDC) receive more extensive training in patient administrative issues while attending the Independent Duty Course, which is a 250-day Navy enlisted "C" school held at the Naval School of Health Sciences, San Diego, California. Medical Service Corps officers, senior Navy Medicine enlisted personnel, and mid-level to senior civilians have the opportunity to attend a

[22] Ibid.

four-week Patient Administration Course (PAC) offered at the Naval Medical Education and Training Command (NMETC), Bethesda, Maryland. This course offers instruction in a wide variety of patient administrative duties and responsibilities to include presentations regarding placement of personnel in a temporary medical duty status such as TLD and an opportunity to meet representatives from EPMAC and TMU. Other jobs within the Patient Administration Department such as LIMDU Coordinator or MHC Coordinator receive on-the-job training (OJT). Each training opportunity enforces the overall mission and vision of Navy Medicine to restore personnel to full duty in a timely manner.

In summary, current and future readiness depends on alignment, awareness and education between the Operating Forces, and medical commands, both ashore and afloat, under the direction of BUMED. Objectives and goals can be achieved through the implementation of MHS's strategic plan using the Balanced Scorecard to work towards its vision of "A world-class health system that supports the military's mission by fostering, protecting, sustaining and restoring health."[23] Current and future readiness can also be provided through Navy Medicine's mission of Force Health Protection and its own ROI, which for Navy Medicine stands for "Readiness, Optimization and Integration."[24] Readiness can be achieved through the use of the Individual Medical Readiness (IMR) metrics in an effort to provide the fleet with a healthy and fit force in support of Sea Power 21.

[23] "MHS Strategic Plan." http://www.ha.osd.mil/strat plan, January 2003.

[24] Navy Surgeon General, "Assumption of Office Speech." 31 August 2001, www.bumed.navy.mil, October 2002.

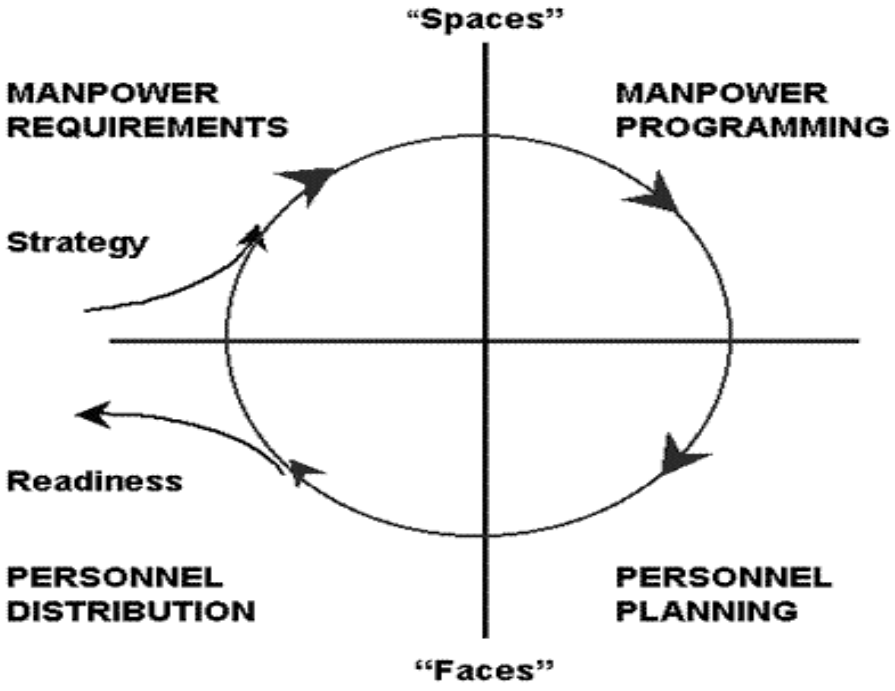
Optimization means to make the best use of the all resources available and integration means that Navy Medicine will work with many other organizations within the Navy and within DoD to achieve the goals and objectives set forth in the Navy Medicine Strategic Structure.

THIS PAGE INTENTIONALLY LEFT BLANK

III. MANPOWER CONCEPTS REGARDING NAVY ASSETS

A. OVERVIEW

As of March 7, 2003 the enlisted active duty inventory of the Navy totaled 324,598.[25] The Navy's Manpower, Personnel and Training (MPT) system is used to manage these assets. The Navy's MPT system as seen in Figure 7 is comprised of four processes: Manpower Requirements, Manpower Programming, Personnel Planning and Personnel Distribution.



Source: From MPT Brief (2001)[26]

Figure 7. Overall MPT System

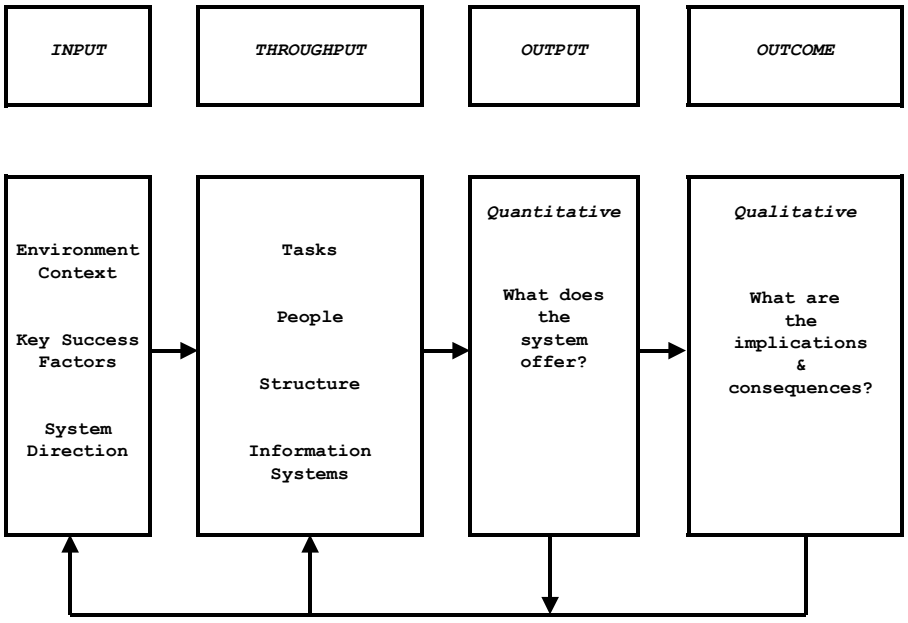
This research will concentrate on the Personnel Distribution process, which is located in the lower left

[25] Status of the Navy, http://www.chinfo.navy.mil/navpalib/news/.www/status.html, March 2003.

[26] Manpower, Personnel & Training Brief, CDR Bill Hatch, Naval Postgraduate School, Monterey, California, October 2001.

quadrant of the MPT system model in Figure 7. An overview of the Navy's MPT system will be briefly reviewed to lay a foundation. It will include some of the key players, documents and information systems.

Several figures and models will visually assist the written descriptions of how the Navy's MPT system works. One of the models to be used is a systems model, which, consists of a set of interconnected elements and parts, which allow for feedback from one part of the model to produce changes in other parts. Figure 8 show the elements that make up a general systems model.



Source: After Organizational Systems Framework Handout[27]

Figure 8. General Systems Model

The systems model is a set of elements working together towards a shared idea. The first element, input, takes into consideration the political, economical and social environment, which is external to the system. The

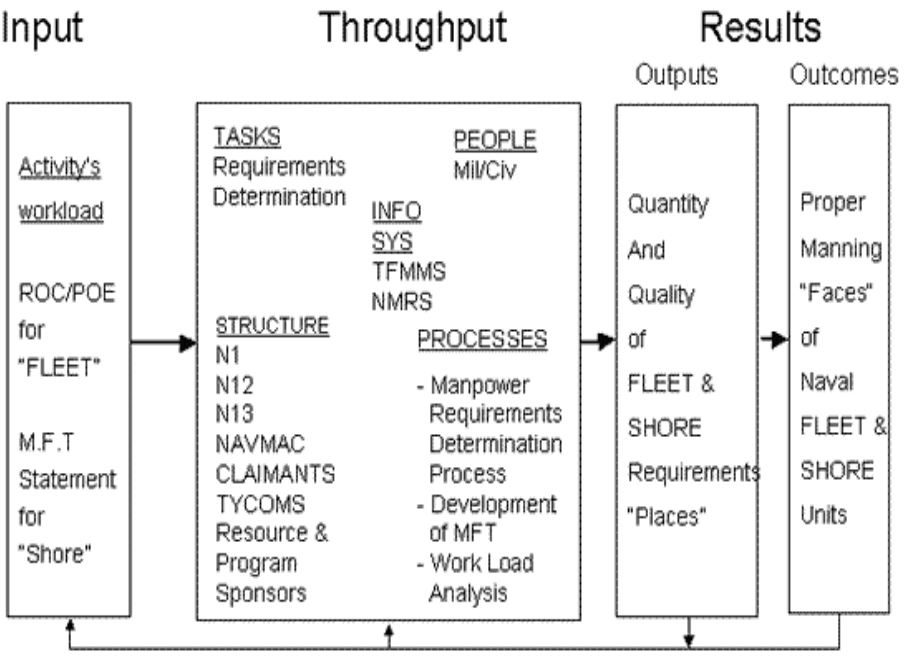
[27] Strategic Management Course, Dr. Carey Simon, Naval Postgraduate School, Monterey, California, January 2003.

input element answers the question of what it takes for the system to be successful as well as setting the direction that needs to be taken to accomplish the mission, vision and goals, through established strategies. The second element, throughput, takes into account design factors which look at jobs need and what type of people are needed to do the jobs as well as identifying the technologies and structures required to successfully achieve the mission and lastly, outputs and outcomes. Outputs state the measurements and indicators of performance such as the number of total Navy enlisted personnel. Outcomes state how the outputs are viewed in relation to the environment, such as the quality of the Navy enlisted population. To summarize, a systems model has a common purpose, the input where direction is set as in a vision statement; a throughput of design factors such as what type of people are involved, what tasks are required, who is in charge and how will it be accomplished; and outputs and outcomes, the qualitative and quantitative results of the system.

A clear understanding of the Navy's Manpower, Personnel and Training (MPT) system is essential to understanding the importance and necessity of training personnel to aggressively track those service members who are in a temporary medical status category.

1. Manpower Requirements

The first quadrant in the Navy's MPT system, shown in Figure 7 is Manpower Requirements Process and is graphically displayed in Figure 9 using a systems model.



Source: From MPT Brief (2001)[28]

Figure 9. Manpower Requirements Process Systems Model

The Requirements process begins with key players shown in the throughput section of the systems model, such as: Resource sponsors for expeditionary, ships, submarines, aviation, etc. (e.g., N76, N77, N78…) translate national strategic objectives, Required Operational Capabilities and Projected Operational Environments into unconstrained manpower needs.[29]

The ROC is a statement prepared by mission and warfare sponsors that details capabilities required of ships in different operational situations. The POE is a statement expressing the environment that the ship is expected to

[28] Manpower, Personnel & Training Brief, CDR Bill Hatch, Naval Postgraduate School, Monterey, California, October 2001.

[29] Butler, Virginia L., and Molina, Valerie A., *Characterizing Sailor and Command Enlisted Placement and Assignment Preferences*, Master's Thesis, Naval Postgraduate School, Monterey, California. March 2002.

operate. The Unconstrained manpower requirements creates several documents titled Ship, Squadron, and Statement of Manpower Requirements (SMD, SQMD, FMD and SMR). The process continues when the Navy Manpower Analysis Center (NAVMAC) and Claimants collect workload by rate and rating and imply the Navy Standard Workweek documented in the Manual of Navy Total Force Manpower Policies and Procedures, OPNAV Instruction 1000.16J. Enlisted requirements are then determined from collected workload, which are converted to requirements that Resource Sponsors are responsible for authorizing. The Claimants and NAVMAC determines shore and fleet requirements.

2. Manpower Programming

The second quadrant shown in Figure 7 is Manpower Programming Process, by which Manpower Requirements get translated into dollars. Programming objectives are to: match available resources against validated requirements; convert planned requirements into resources needed; develop a balanced Navy Program Objective Memorandum (POM) for submission to the Office of the Secretary of Defense; and Defend the POM through program and budget reviews. The two sub-processes of the Manpower Programming quadrant are: the Planning, Programming, and Budgeting System (PPBS) and End Strength (ES) determination. The PPBS involve "balancing near term readiness, sustainability and force structure requirements with long term modernization needs to ensure a war fighting capability today and in the future" as well as providing the "best mix of forces, equipment and support attainable within fiscal

constraints."[30] ES is determined by converting program budget decisions to a finite number of sailors and officers by rating and designator, on a cost per sailor basis.[31] Claimants authorize requirements, which become Billets Authorized (BA), in the Total Force Manpower Management System (TFMMS). In summary, an authorized billet is made up of three components: 1) requirement determination by a Claimant or NAVMAC; 2) claimant authorization (approval); and 3) Congressionally approved End Strength.

Documents generated from the Manpower Programming Process are the Enlisted/Officer Programmed Authorizations, (EPA/OPA) through the Future Years Defense Program (FYDP) and the Activity Manpower Document (AMD). The FYDP is made up of the current year, the budget year and projected budget five years out which summarize the Secretary of Defenses approved plans and programs. The EPA and OPA projects the current and future fiscal year billets which provides guidance to Enlisted and Officer strength planners and community mangers to determine accessions, training, promotions and retention, which shapes the Navy's personnel inventory.

3. Personnel Planning

The third quadrant located in Figure 7 is the Personnel Planning Process and is the beginning of the 'faces' portion of the Navy's MPT system. Personnel

---

[30] PPBS Overview, www.nps.navy.mil/programming.htm, February 2003.

[31] Butler, Virginia L., and Molina, Valerie A., *Characterizing Sailor and Command Enlisted Placement and Assignment Preferences*, Master's Thesis, Naval Postgraduate School, Monterey, California, March 2002.

Planning is comprised of four sub-processes: strength planning; community management; recruiting and training.

Strength planners perform a variety of functions such as predicting, planning and managing the Navy's total gains and losses in a given fiscal year while remaining within budget to reach the congressionally mandated End Strength. Gains are primarily determined by accessions and losses comprised of attrition, reenlistments and retirements.

Community management for officers and enlisted personnel are different by size and career progression considerations. Milestones determine an officer's career, whereas enlisted career milestones are determined by advancement examinations. Therefore, community management is broken down into Enlisted Community Managers (ECM) and Officer Community Managers (OCM). ECM's shape and monitor their specific community through accession planning; determining sea/shore rotation; 'A' and 'C' school planning; determining advancements; separations; application for Temporary Early Retirement Authority (TERA); and by using incentives such as a Selective Reenlistment Bonus (SRB) and other special pay and allowances. OCM's manage the officer community through promotions; accessions and resignations; balancing billets with available personnel and professional development requirements; compensation; career milestones; and following requirements set forth in mandated policies such as the Defense Officer Personnel Management Act (DOPMA).

Recruiting is critical to the success of the Navy's mission and to meeting future capabilities. Navy recruiting has many constraints placed upon it making it

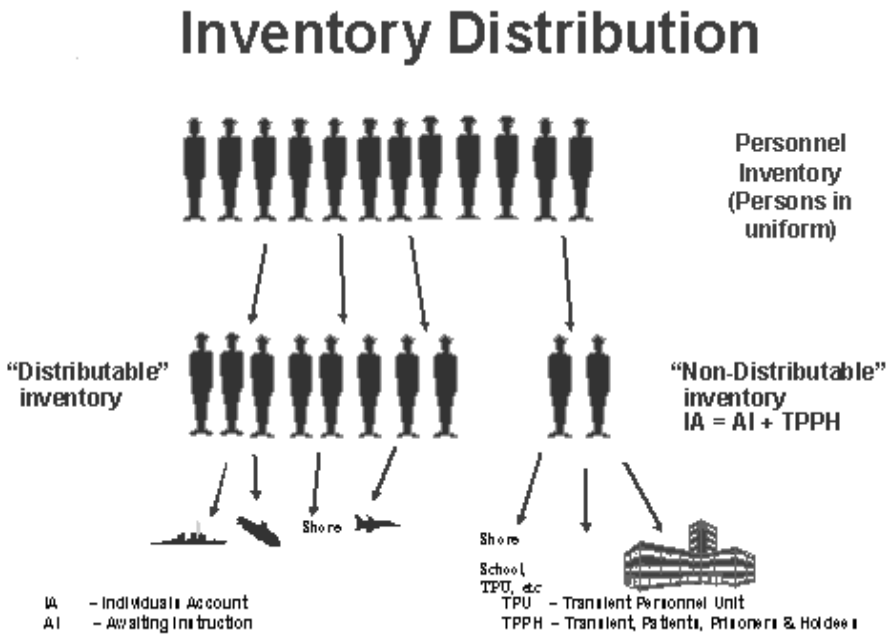
very difficult. The recruiting population is targeted towards the 17 to 23 year old population and is shared among all the services making the recruitment process complex and competitive. Commander, Navy Recruiting Commands (CNRC) is constantly looking for new and creative methods to attract the highest quality of today's youth.

The last of the four sub-processes in the Personnel Planning quadrant is training. The Navy is unique in that it 'grows its own,' which is why the Navy MPT System is concerned with determining needs, planning, managing quotas, and training sailors. Needs are determined through requirements driven by Billets Authorized (BA), occupational standards for the 'A' and 'C' school plans and accession plans developed by the ECM's and OCM's. The Planning Process takes its roots from various manpower documents and is applied to training and accession guidance in order to determine unconstrained and constrained requirements. Quotas are managed through the allocation and reallocation of training seats needed to execute the 'A', 'C', and other school plans. Finally the training of personnel is conducted at various Navy schools across the nation and globe.

4. Personnel Distribution

The final quadrant in the MPT system is the personnel Distribution Process and is the most widely known process touching personnel numerous times throughout their careers. Personnel distribution is the process, which fills projected command vacancies by placing the right person with the right skills in the right place at the right time, and is better known as "R^4." Distribution begins when

personnel are 'in the window,' which is approximately nine months prior to a service member's projected rotation date (PRD). To better understand this process it is important to understand that not all personnel in the current inventory are distributable. Some personnel are considered non-distributable inventory as shown in Figure 10. The non-distributable inventory, called the Individuals Account (IA), is classified into two categories: Awaiting Instruction (AI) or students, and Transients, Prisoners, Patients and Holdees (TPP&H).



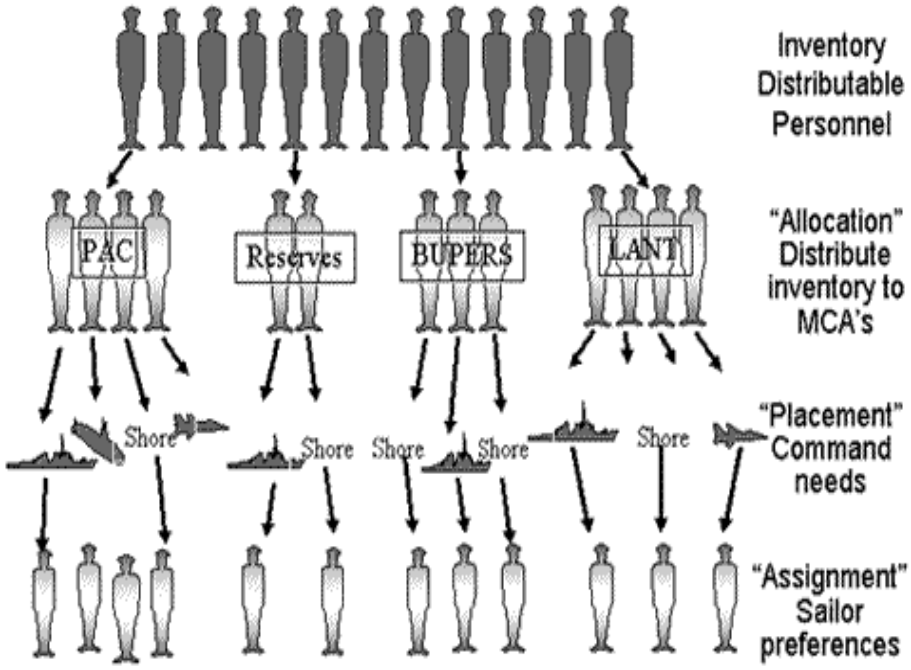
Source: From MPT Brief (2001)[32]

Figure 10. Inventory Distribution

The Distributable Inventory as shown in Figure 10 and Figure 11 shows how distributable inventory is allocated among the four Manning Control Authorities (MCA's), Commander in Chief, U.S. Pacific Fleet (CINCPAC), Commander, Naval Reserve Forces (COMNAVRESFOR), Commander,

[32] Manpower, Personnel & Training Brief, CDR B. Hatch. Naval Postgraduate School, Monterey, California, October 2001.

Naval Personnel Command (BUPERS) and Commander, U.S. Atlantic Fleet (COMNAVLANTFLT).



Source: From MPT Brief (2001)[33]

Figure 11. Distributable Inventory

The three sub processes of the distribution process are allocation, placement and assignment and are sometimes referred to as the "triad of detailing."[34] Placement works with the detailer in assigning the sailor by matching the command's needs with the sailors' desires.

This research focuses on the personnel who make up the transient and patient portions of the TPP&H account who are not distributable and LIMDU personnel who are considered part of the distributable inventory. In particular, this research looks at how LIMDU personnel impact the distribution process by being assigned to valid shore

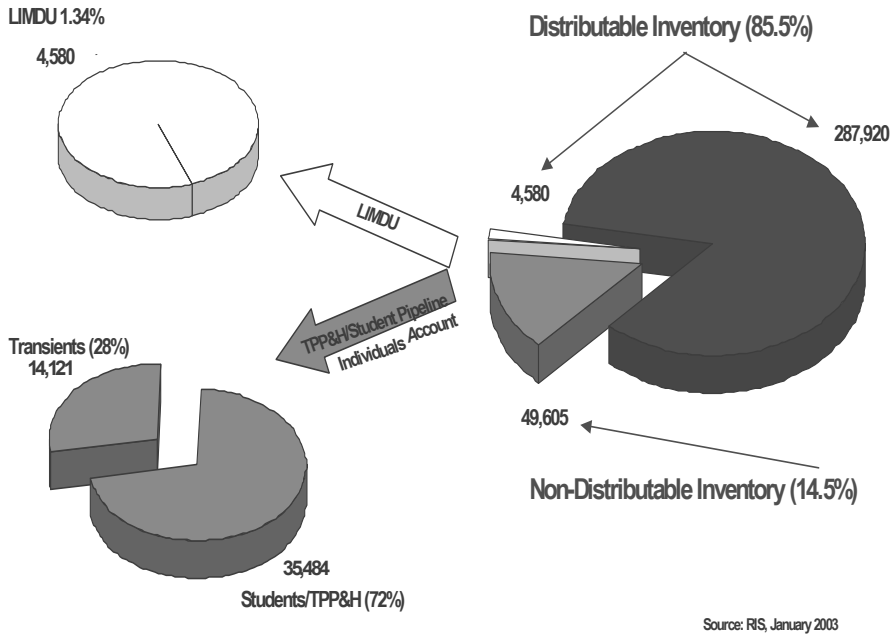
[33] Ibid.

[34] http://web.nps.navy.mil/distribution.process.html, February 2003.

commands in valid billets, but are limited in their capacity to accomplish Navy workload to varying degrees. This will be elaborated on in more detail later in the chapter.

B. DISTRIBUTION

Figure 12 shows how current Navy enlisted assets were distributed throughout the Navy as of January 2003.[35]



Source: EPMAC – RIS, January 2003

Figure 12. Distribution Of Navy Wide Assets

Force structure is the collective sum of personnel associated with fleet units and shore establishments but does not include personnel assigned to the Individuals Account (IA), which is a Defense Planning and Programming category of manpower other than Force Structure. Simply, the IA is the financial accounting overhead cost to the

[35] Enlisted Placement Center, http://www.epmac.nola.navy.mil, Placement Reports, January 2003.

Navy in preparation to plan and conduct war. Figure 12 also shows how Navy enlisted assets are broken down into distributable and non-distributable inventory. The pie charts illustrate Navy enlisted assets, USN and TAR, as of January 2003, which total 342,105. Distributable inventory is 85.5% of 342,105 with non-distributable inventory equal to 14.5%.[36]

Distributable inventory takes into account all personnel available for assignment and includes personnel placed in a temporary limited duty status, which total 4,580, or approximately 1.34% of the total distributable inventory.[37] Personnel in this category are transferred from their fleet units and placed in an authorized shore billet the duration of their illness or injury and count against the shore commands authorized billets. On the other hand, fleet commands have an unplanned loss and are without a body until an assigned replacement is onboard. Of course, at any point of time, not all personnel in the current inventory are distributable to specific assignments and are therefore placed in the non-distributable inventory otherwise known as the Individuals Account (IA).

The 72% Students/TEMDU portion of the IA pie refer to personnel under instruction, hospitalized, in confinement, temporary duty, failed to report, or Humanitarian, this includes personnel in a Medical Hold status who are assigned TEMDU and are counted in the TPP&H account. Medical Hold is for enlisted personnel only and allows personnel to be removed from their fleet unit and placed in

[36] Ibid.

[37] Ibid.

a Transient Personnel Unit (TPU) allowing them to receive outpatient care and ample time to recover and return to a full duty status in a timely manner. Personnel are authorized to be in a MedHold status up to 60 days, with weekly medical follow-ups. Personnel removed from their fleet unit and placed in Medical Hold count against the fleet commands authorized billets. Personnel in the various categories are assigned an Account Category Code (ACC).

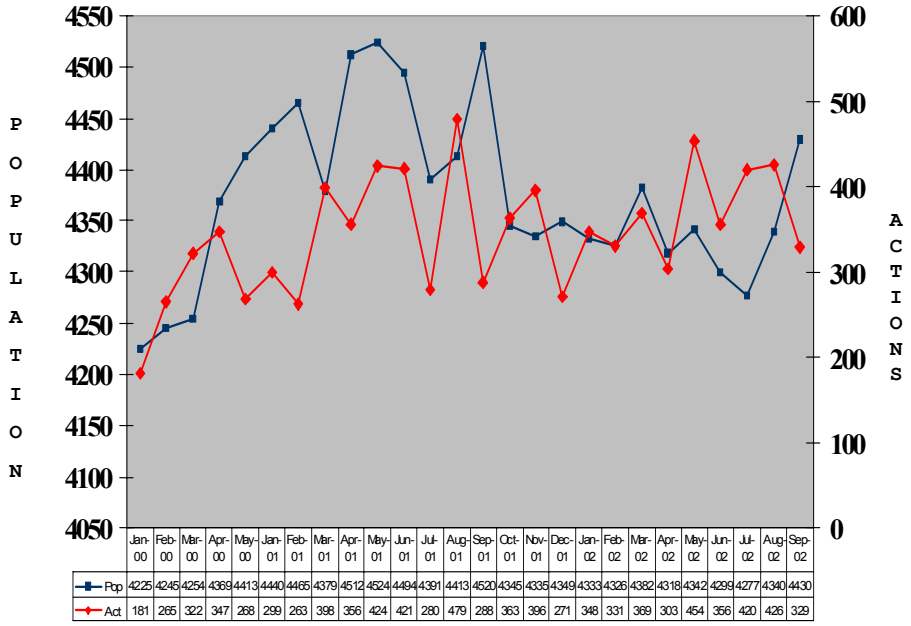
There are approximately 21 ACC's: ten ACC's designated for transients; eight for patients and prisoners; and three for holdees. ACC's indicates what types of duty status personnel are assigned. Personnel permanently assigned for full duty are placed in ACC 100 FOR DUTY (FORDU)- PERMANENT ASSIGNMENT FOR DUTY. The ACC's relating to this thesis are: ACC 105, FORDU LIMDU – Limited Duty (assignment restricted for medical reasons); ACC 320 TEMDU FFT – Temporary Duty for Further Assignment; ACC 355, TEMDU MED BD OR PEB – Temporary Duty Awaiting Formal Medical Board/Physical Evaluation Board Proceedings; and ACC 371, TEMDU UNTREAT – Medical Holding Company. Availability of personnel in each of the ACC's is erratic and difficult to monitor. Personnel assigned to each category are dependent upon correct and accurate ACC recordings. If appropriately documented, the ACC reflects the primary reason for assignment or retention of personnel in the Transient Pipeline.[38]

When personnel are placed in Medical Hold they are removed from their fleet unit and assigned to either a

[38] Transient Personnel Administration User's Manual, EPMACINST 5000.3D, pp. 2-2.

Medical Holding Company attached to a Medical Treatment Facility or to a Transient Personnel Unit under the ACC 371. Since this assignment is TEMDU, this translates to the fleet as having one less service member available to accomplish work in an authorized billet onboard a fleet unit. Since the sailor is assigned TEMDU, the fleet command is responsible for the sailor and must provide funded orders for the duration of treatment. Personnel placed Sick in Quarters (SIQ) or on light duty are not given an ACC and remain assigned onboard their fleet unit to be monitored by their local medical department. Description of these temporary medical status categories will be explained in more detail in Chapter Four.

Personnel placed in LIMDU are initially removed from the fleet command and are often placed on Medical Hold until determination is made to recommend either a period of LIMDU or referral to the Physical Evaluation Board (PEB). Figure 13 displays the total LIMDU population for the periods January 2000 through September 2002. The population (POP) accounts for the total number of personnel in a LIMDU status from sea and shore duty. Shore duty personnel are only reflected if it is required in accordance with the Enlisted Transfer Manual, Chapter 24, as some personnel on shore duty remain ACC 100 depending on their remaining shore time and period of LIMDU. Figure 13 plots the number of Placement Actions (ACT) each month for the number of personnel on their first period of LIMDU who were made available for assignment and were placed in LIMDU ACC 105 during that month. As Figure 13 shows, each month about 330 placements are made with a monthly average of 4400 personnel in a LIMDU status.



Source: TPP&H Records. Average taken from July 1999 to September 2002[39]

Figure 13. Population & Placement of ACC 105 (LIMDU) Personnel

Figure 14 illustrates the ACC process flow once determination is made to place a service member in a MedHold or initial period of LIMDU.

[39] Email Correspondence between, Mr. Pridgen, EPMAC, New Orleans and the author, 25 November 2002.

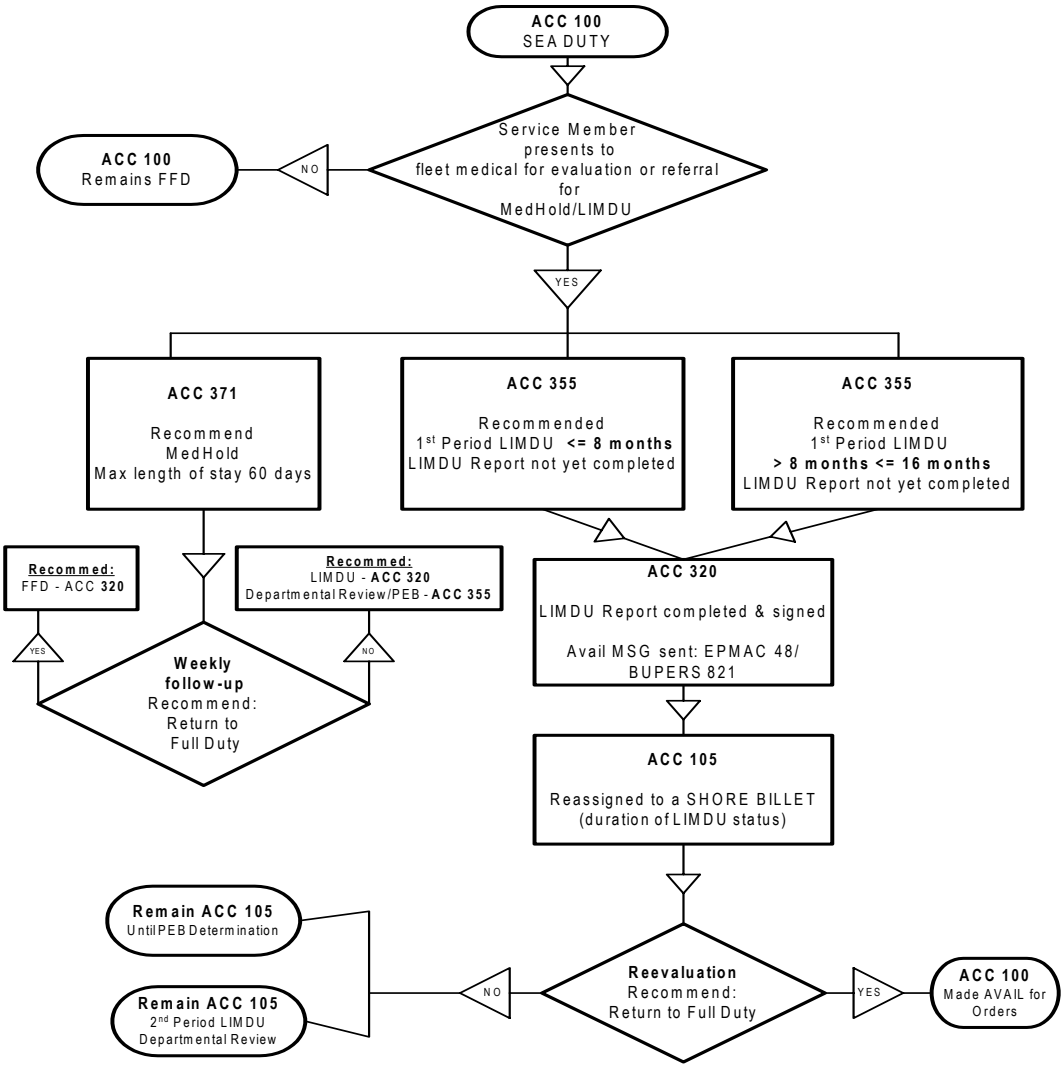


Figure 14. MedHold and LIMDU ACC Flow Process

The service member is transferred from the fleet unit and placed in ACC 355, pending final completion of the Abbreviated Medical Board Report (NAVEMD 6100/5). Upon signature and completion of the Abbreviated Medical Board Report (NAVEMD 6100/5) the service member's ACC is changed from 355 to ACC 320, awaiting further assignment. Once changed, an availability message is transmitted to EPMAC Code 48. EPMAC makes the placement decision and advises

the enlisted detailer of the LIMDU duty station. At this point the enlisted detailer writes orders assigning the service member to the appropriate LIMDU duty station under the ACC 105.

C. CHAPTER SUMMARY

The Navy's MPT System consists of four quadrants often called the 'Circle of Life' and is a system designed to match Navy mission to requirements. Since the Navy tends to grow its own from within the organization it is difficult to interpret and predict outcomes and outputs. Understanding how and where personnel in Medical Hold and Temporary Limited Duty are placed in the distributable and non-distributable inventory help in understanding why it is important to closely and aggressively monitor and track personnel placed in the variety of Account Category Codes (ACC). Close tracking of personnel placed in ACC'S due to a temporary medical status category ensure that personnel can be returned to full duty status in a timely manner. A medically ready and fit force supports operations and deployments, which enhance readiness.

THIS PAGE INTENTIONALLY LEFT BLANK

IV. OVERVIEW OF THE DIFFERENT TYPES OF TEMPORARY MEDICAL STATUS CATEGORIES

A. OVERVIEW

Temporary medical status categories are tools used by healthcare providers to place "injured or ill" personnel in a temporary duty status to afford them the opportunity to heal and return to full duty in a timely manner. Each of these status categories help Navy Medicine accomplish its mission of maintaining a fit and ready military through a variety of avenues allowing personnel sufficient time to heal and become whole again.

B. TEMPORARY MEDICAL STATUS CATEGORIES

The temporary medical status categories that will be discussed in this chapter are: sick in quarters; quarters OB; convalescent leave and maternity leave; subsisting out; light duty; medical hold and temporary limited duty and are offered as an overview to the variety of medical status categories afforded to personnel. Time limitations, follow-up requirements and documentation necessary for monitoring and tracking will also be discussed and displayed for easier understanding of each category. An in depth review of medical hold and temporary limited duty process will be further discussed in this chapter.

1. Sick in Quarters (SIQ)

A healthcare provider places personnel sick in quarters (SIQ) when a medical condition or injury impedes their ability to perform required workload but does not require inpatient care in a Medical Treatment Facility.

Personnel can be placed SIQ for a minimum of 24 hours to a maximum of 72 hours with an extension up to 14 days with appropriate justification.

Healthcare providers are to document when a service member must return to medical for reevaluation as well as the specific symptoms that warrant immediate attention by a healthcare provider.[40] Each medical department is delegated the responsibility to establish their own internal means of review to monitor SIQ recommendations exceeding 72 hours for administrative and clinical appropriateness.[41]

2. Quarters OB

Quarters OB is used on rare occasions when it is necessary to place female personnel on an extended period of bed rest for obstetrical reasons, which requires weekly follow up.[42] Females are usually placed in this type of status because of one or a combination of the following reasons: she has become disabled; complications are present and delivery is imminent; and conditions or complications caused by the pregnancy could potentially lead to an adverse outcome if she were in a full duty status. Females can remain in this status as long as medically necessary and it does not count as charged leave.

3. Convalescent Leave and Maternity Leave

Convalescent leave is a recommendation by a service member's physician to their parent command for leave for

---

[40] http://www.vnh.org, Virtual Naval Hospital, General Medical Officer (GM0) Manual: Administrative Section: Medical Department Topics, January 2003.

[41] Ibid.

[42] Management of Pregnant Servicewomen, OPNAV Instruction 6000.1A, 21 February 1989.

the purpose of recuperation of up to 30 days. This is generally recommended for the recovery period following a planned surgical procedure. This type of leave does not count as charged leave. Maternity Leave is a form of convalescent leave following childbirth. It is authorized in accordance with the Management of Pregnant Servicewomen guidance, OPNAV instruction 6000.1 series, for a period of 42 days and does not count against the service members charged leave.

4. Subsisting Out

Subsisting out is temporary medical status category reserved for personnel who are hospital inpatients and continue to require inpatient admission but is allowed to reside at home. This is relatively rare but is appropriate for personnel with contagious diseases such as measles or chickenpox, who are recovering well but require rest and isolation.

5. Light Duty

A healthcare provider who has determined that a service member has a temporary medical condition, which will limit the service members performance of duty, will place the servicemember in a light duty status after a careful examination. When a service member is placed on light duty they are expected to fully recover and return to full duty within 30 days. Personnel can be assigned to light duty for no more than 30 days for the same condition.[43]

[43] Manual of the Medical Department, Chapter 18, article 18-30, pp 18-25.

Since placement of personnel on light duty is only a recommendation from the healthcare provider to the parent command, compliance is up to the parent command with the healthcare provider's recommendation. In some cases a parent command is unable to accommodate the restrictions of the light duty in which case the service member will need to be placed in Medical Hold or a Temporary Limited Duty board will need to be convened. In rare cases light duty can be extended up to an additional 30 days in preparation for a full medical board.

6. Medical Hold (MEDHOLD)

Placement in a Medical Hold status is reserved for enlisted personnel only and primarily for those members attached to an operational unit. Personnel in this status are either released from an inpatient status or require outpatient care and berthing for the purpose of receiving frequent care and/or medical board processing. Personnel who are placed on Medical Hold pending medical board processing are usually released from Medical Hold when their medical boards are completed. Personnel attached to a shore command are not normally placed in Medical Hold unless there are extenuating circumstances.

Personnel are placed in this status no longer than 60 days, including any approved convalescent leave. An exception to this policy is for personnel who have had any oral surgery procedures that usually require a 60-day recovery period.[44] Additionally, personnel must be capable of rendering self-care for themselves. Actual medical care for personnel in this status is rendered at the MTF or BMC

[44] Policy and Procedures Concerning Medical Holding Companies (MHCS), BUPERS/BUMED Instruction 1306.72G, 26 November 2001.

and have available berthing spaces or in close proximity to the MTF.

Requirements for personnel in a Medical Hold status are that they be gainfully employed within the medical limitations documented by their healthcare provider and reevaluated weekly for continuation or termination of the Medical Hold status.[45]

7. Temporary Limited Duty (TLD or LIMDU)

Placement of personnel in a Temporary Limited Duty status is the result of a formalized process to remove personnel from regularly assigned duties due to the presence of an illness or injury, from which personnel are expected to recover. Personnel are normally placed on TLD for a minimum of eight months, which may be shorter if appropriate and up to a total of 16 months for any one medical condition. Currently there are no limits on the number of TLD's authorized per career, but health care providers are advised to follow up with their appropriate Patient Administration Departments for guidance. These time limits allow for adequate treatment and reevaluation of the servicemember. Personnel are required to be reevaluated two months prior to the expiration of the TLD period. Service members are classified into one of the three categories at expiration of TLD: fit to resume duties; placed on an additional period of TLD, which is referred to as a departmental review; or referred to the Physical Evaluation Board (PEB) via a medical board. The healthcare provider determines placement into one of these categories at the time of reevaluation. Personnel placed

[45] Ibid.

on TLD are given PCS ashore assignments consistent with the limitations annotated in the service members health record and documented on the Abbreviated Limited Duty Medical Board Report (NAVMED 6100/5), hereby referred to as LIMDU board report.

When a healthcare provider, usually a specialist, determines that a servicemember has reached the maximum benefit of treatment and use of other temporary medical duty status categories and feels that the service member will not recover from the illness or injury within the authorized maximum TLD time of 16 months, then the case will be referred to the Physical Evaluation Board (PEB) in Washington D.C. via a medical board report. The PEB will determine if the member is unfit for retention due to a service-incurred disability, and if so, award an appropriate disability rating.

C. THE PROCESS

Classification into one of the medical status categories begins when a healthcare provider evaluates that a service member's illness or injury warrants modification of regular duties. The limitations and duration as diagnosed and determined by a healthcare provider's examination determines which temporary medical status category to place the service member. Table 1 is a matrix that shows the different temporary medical status categories discussed in Section B of this chapter using the guidelines associated with each category. The paragraphs following Table 1 will discuss the detailed steps and documentation required in placing personnel in a MedHold or TLD status, which is the focus of this research.

Table 1. Temporary Medical Status Categories Matrix

CATEGORY	PROVISIONS	REFERENCES
Sick In Quarters (SIQ)	Recommendation for absence from duty for medical reasons. ▪ 24-78 Hours ▪ Extended up to 14 Days with justification.	OPNAVINST 6000.1 NAVMEDCOMINST 6320.3 BUMEDINST 6300.2
Quarters OB	For pregnant service members. ▪ As long as medically indicated	OPNAVINST 6000.1
Convalescent Leave (CONLV)	Recommendation from physician for recuperation. ▪ Up to 30 days. Additional CONLV may be recommended as medically indicated.(does not count as charged leave).	BUMEDNOTE 1300
Maternity Leave	Authorized after childbirth. ▪ For a period of 42 days (does not count as charged leave).	OPNAVINST 6000.1
Subsisting Out	Reserved for inpatients that are allowed to reside at home. ▪ As medically indicated.	Patient Administration Handbook https://bumed.med.navy.mil/pad
Light Duty	Recommendation for specific restrictions. ▪ Up to 30 days.	NAVMED P-117, MANMED, Chapter 18
Medical Hold	Enlisted personnel ONLY ▪ 60 days max (including any convalescent leave). ▪ Exceptions of 60-day rule for those who have undergone oral surgery. ▪ Requires weekly medical follow-ups.	SECNAVINST 1850.4 NAVPERS 1850.4, ENLTRANSMAN BUPERSINST/ BUMEDINST 1306.72 BUMEDNOT 1300.2
Temporary Limited Duty (TLD/LIMDU)	Formal process removing personnel from regular duties. ▪ Normally 8-month period may be less if appropriate. ▪ Max time is 16 months for any one condition (Referred to as a 2nd period of LIMDU or Departmental Review). ▪ Requires reevaluation 60 days prior to expiration of TLD.	SECNAVINST 1850.4 NAVPERS 1850.4, ENLTRANSMAN BUMEDINST 1300.2 NAVMED P-117, MANMED, Chapter 18

1. Medical Hold Process

Assignment to Medical Hold is initiated when a service member permanently assigned to a fleet unit has a condition or injury which prevents the service member from remaining onboard the fleet unit as extended outpatient medical care is needed for recovery to full duty status. The Medical Hold process begins when a service member assigned to an operational unit is classified as having a medical condition preventing them from the workload required by their billet. The extent of their medical condition

requires extended outpatient care for recovery to full duty status. After this determination is made, the healthcare provider documents the treatment plan and placement in MedHold in the medical record and directs the service member to report to the Patient Administration Department for further instruction. In the Patient Administration Department, the MedHold Coordinator contacts the service member's medical department and prepares a letter notifying the operational unit of the service member's placement in MedHold and request for TEMDU orders. Depending on the situation, the service member will be berthed in a Medical Holding Company, Transient Personnel Unit (TPU) or their own quarters to receive outpatient medical treatment and weekly follow-up visits. The personnel office will prepare TEMDU orders for the service member to report to the MHC or TPU. Anytime during the treatment plan the healthcare provider may return the service member to full duty status. If the healthcare provider feels more time is required a LIMDU board is generated or a medical board is dictated and the case referred to the PEB for final determination

2. Temporary Limited Duty Process

The Temporary Limited Duty Assignment process begins when the service member reports to a fleet unit's medical department representative, which may be an Independent Duty Corpsman or a General Medical Officer. The Independent Duty Corpsman or General Medical Officer will examine the service member and determine that the service member needs to be evaluated by a specialist for further diagnosis. A General Medical Officer or Independent Duty Corpsman prepares a consult (SF-513) for the service member's

referral to be seen by a specialist at a Medical Treatment Facility.

In 1996, an OPNAV notice gave Commanding Officers of Medical Treatment Facilities the opportunity to authorize General Medical Officers (GMO) assigned to operational units the authority to treat and evaluate their respective service members in Branch Medical Clinics. This authority also allowed GMO's to initiate a first period of Temporary Limited Duty. However, final approval would remain with the local Medical Treatment Facilities' Commanding Officer.[46] Few Commanding Officers opted to delegate this authority as both the Bureau of Medicine and Surgery (BUMED) and the Physical Evaluation Board (PEB) felt that medical boards are in the realm of specialists, not General Medical Officers.[47] If the specialist determines that a Temporary Limited Duty board is warranted, the specialist will initiate the TLD by completing the LIMDU report. The LIMDU report is a fill-in-the blank carbon copy form with five separate pages, upon completion of the form each page is distributed to five specific areas annotated on the bottom of each page of the LIMDU report. Once the specialist completes the form the service member is directed to hand-carry their medical record, the LIMDU report and report to the MTF LIMDU Coordinator in the Patient Administrative Department at the Medical Treatment Facility for further instructions. Each Medical Treatment

[46] Keenan, M. Debra and Wilkins, Gail M., *Disability Evaluation System and Temporary Limited Duty Assignment Process: A Qualitative Review*, Master's Thesis, Naval Postgraduate School, Monterey, California, March 1998.

[47] Email Correspondence between, CDR Luka, Patient Administration Specialty Leader, BUMED, Washington D.C. and the author, 11 September 2002.

Facility appoints a LIMDU Coordinator in writing to handle all LIMDU issues.

Next, the MTF LIMDU Coordinator reviews the LIMDU report and documentation on the Chronological Record of Medical Care (SF-600) maintained in the members medical record for completeness and accuracy. The Chronological Record of Medical Care is used throughout Medical Treatment Facilities to document treatment and diagnosis of those eligible for care. If the form is incomplete or requires changes, the MTF LIMDU Coordinator will return the report to the specialist for correction or completion. Documentation of the condition the first time through minimizes the time service members remain in a LIMDU status. This form ultimately will be included in the service member's medical record and will become a legal medical record document.

Since placement in a Temporary Limited Duty status alters a service member's condition and limits the service member's ability to perform in a full duty status, it is the responsibility of the MTF LIMDU coordinator and Patient Administration Officer to ensure that the report is legible, complete and accurate. Future determinations of disability may be made on the documentation found on the LIMDU report. Depending on the specialist's schedule this may be done immediately or may take one to two days. The service member will sign the LIMDU report acknowledging any restrictions or limitations and placement on LIMDU. The MTF LIMDU Coordinator explains to the service member the implications of being placed in a Temporary Limited Duty status and reviews the treatment plan and limitations that

the specialist recommends. The LIMDU report is reviewed with the service member and sent to the Convening Authority (CA) for signature. This step of the process takes one or two days. The LIMDU Coordinator also contacts the service member's fleet medical department via telephone notifying them of a service member's assignment to Temporary Limited Duty.

The Convening Authority is usually the Commanding Officer at the MTF or the Officer-in-Charge (OIC) at a Branch Medical Clinic (BMC). The Convening Authority can be delegated to the Medical Treatment Facility directorate level. The Convening Authority is responsible for adequate training of personnel involved with the medical board process to ensure accurate and timely processing of the LIMDU report. The Convening Authority objectively reviews the LIMDU report for completeness and accuracy through their understanding of the Disability Evaluation System (DES) and standards of medical physical qualifications for full duty.

After the Convening Authority reviews, signs and dates the LIMDU report, it is returned to the MTF LIMDU Coordinator. The MTF LIMDU Coordinator submits the LIMDU report to the Patient Administration Officer who is usually Patient Administration Department Head. Once again the LIMDU report is reviewed, this time by the Patient Administration Officer for completeness, accuracy and Line of Duty Determination (LODD). A LODD is required for the following reasons:

- When the injury, disease, or medical condition occurs under doubtful circumstances such that it may be due to the

service member's intentional misconduct or willful negligence, or incurred during an Unauthorized Absence (UA).

- The injury involves the abuse of alcohol or other drugs.
- The injury is self-inflicted.

If a LODD is warranted, the Patient Administration Officer notifies the service member's operational unit and it is the operational unit's responsibility to conduct a Line of Duty Investigation (LODI). In most cases where a LODD is warranted the service member's operational unit has already initiated a LODI and is reviewing the incident for cause of injury. The LODD and LODI process will not be reviewed during this time and will not be included in the scope of this research.

Once the Patient Administration Officer signs and dates the LIMDU report, the MTF LIMDU Coordinator contacts the service member and fleet unit informing them that the LIMDU report is being routed to the operational unit's personnel office for completion and endorsement. Service members attached to operational units send the LIMDU report to the unit while members attached to shore operational units have their LIMDU report sent to their respective Personnel Support Detachments (PSD) or Personnel Support Activities (PSA). This part of the process can take from five to ten days, but once accomplished the MTF LIMDU Coordinator logs the information into whatever type of tracking or information system used by the MTF or BMC.

Delivery methods of the LIMDU report to the service member's operational unit vary. In some cases the service member hand carries the LIMDU report to their personnel

office, while in other cases the LIMDU report is forwarded via the guard mail system to a specific person that the MTF LIMDU Coordinator has corresponded with over the telephone. In either case, a telephone call is placed informing the service member's chain of command that the LIMDU report is enroute. If the MTF LIMDU Coordinator has not received the LIMDU report back in five to seven days, a follow-up telephone call is placed to verify status of the LIMDU report.

Once in receipt of the LIMDU report the operational unit is responsible for the LODD if required stating the duties the service member is presently assigned. Since this research is limited to personnel attached to operational units this portion of the report is not as important as it would be for personnel on shore duty. Personnel attached to operational units are removed from their current duty station and transferred to a shore command until they are returned to a full duty status. If the service member is attached to a shore command their assigned duties would be reviewed to determine if reassignment is required.

Once the operational unit endorses the LIMDU report it is forwarded to the service member's personnel office. Personnel offices maintain service records for active duty personnel and handle a variety of administrative functions. The personnel office will endorses the LIMDU report and prepare an Availability Report (Naval message) which will be sent to PERS-821, and the Enlisted Placement Management Center (EPMAC), the parent command, and the Medical Treatment Facility informing them that the service member

has been placed on Temporary Limited Duty for the following reasons, which is specified on the LIMDU report.

The Enlisted Placement Management Center is the central coordinator for the placement and assignment of Temporary Limited Duty personnel. Their function is to equitably spread Temporary Limited Duty personnel throughout a geographical area. The command endorsed availability message makes the service member available for orders. This means that the service member will be re-assigned to a local shore command close to the Medical Treatment Facility to receive the required medical treatment while healing.

Since timely determination of a service member's duty status impacts force readiness it is imperative that the LIMDU Coordinators of the Medical Treatment Facility, Personnel Office, and parent command meet on a regular basis to discuss and resolve issues. The Enlisted Transfer Manual states in Chapter 24 that coordinators shall meet at least monthly.[48]

Ninety days prior to the expiration date of the service member's authorized LIMDU assignment and in accordance with the LIMDU report the PSD LIMDU coordinator will prepare and transmit a naval message requesting a reevaluation appointment. The naval message is sent to the serving Medical Treatment Facility with the names, social security numbers, and specialty service of each service member they are requesting reevaluation appointments with an information copy transmitted to all commands with Temporary Limited Duty personnel for whom appointments have

[48] Enlisted Transfer Manual, Chapter 24, NAVPERS 15909G.

been requested. Once the MTF LIMDU Coordinator receives the naval message, they review their locally devised tracking system to determine which specialty clinics need to be contacted within the Medical Treatment Facility to schedule appointments. Medical Treatment Facilities schedule appointments through the use of the Composite Health Care System (CHCS). Appointments are generally made by CHCS clerks in central appointments or the specialty clinic personnel therefore the MTF LIMDU Coordinator does not have the capability to make appointments in CHCS.

The Composite Health Care System, better known throughout Navy Medicine, as "CHCS" is the system used to register eligible beneficiaries for access into Medical Treatment Facility. CHCS has a variety of capabilities that range from ordering laboratory, x-ray and pharmacy requests to tracking medical records, immunizations and occupational health items. Healthcare providers can also use the consultation aspect of CHCS to submit a consult (SF 513) to a specialty service. The appointment system within CHCS is the portion of the system that is relevant to this research. It is important to understand how appointments are made and who can make these appointments at a Medical Treatment Facility.

In most facilities appointments are available two months out and in some cases only one month out. Since the service member must be seen at least 60 days prior to the expiration date on the LIMDU report the MTF LIMDU Coordinator must work with specialty clinics to ensure that the service member is seen in a timely manner. Scheduling

limitations in CHCS sometimes prolong final disposition of service members in a LIMDU status.

After a service member is re-evaluated by the specialty physician and a determination is made that the service member is fit for full duty the specialty physician annotates it on a Chronological Record of Medical Care (SF-600) and on the final disposition portion of the LIMDU report, by checking "member found fit for duty this date" block, then signs and dates the report. The service member also signs and dates the LIMDU report at the same time. The specialty physician then returns the service member to the Patient Administration Department MTF LIMDU Coordinator for further instruction. If the specialty physician feels that the service member needs additional treatment time a request is submitted for a second period of Temporary Limited Duty, a process called Departmental Review or referral to the Physical Evaluation Board (PEB). Those processes are not within the scope of this research and will not be reviewed.

In the Patient Administration Department the MTF LIMDU Coordinator reviews the medical record and the LIMDU report for completeness. Then the MTF LIMDU Coordinator submits the LIMDU report to the Patient Administration Officer for final review, signature and date. Once this is accomplished the MTF LIMDU Coordinator makes a copy of the LIMDU report for the service member to hand carry to their PSD LIMDU Coordinator and prepares a naval message informing PSD, BUPERS-821, EPMAC and the current LIMDU duty station of the service member of the service member's reinstatement to full duty status. The MTF LIMDU

Coordinator is also tasked with submitting a weekly reevaluation disposition message.

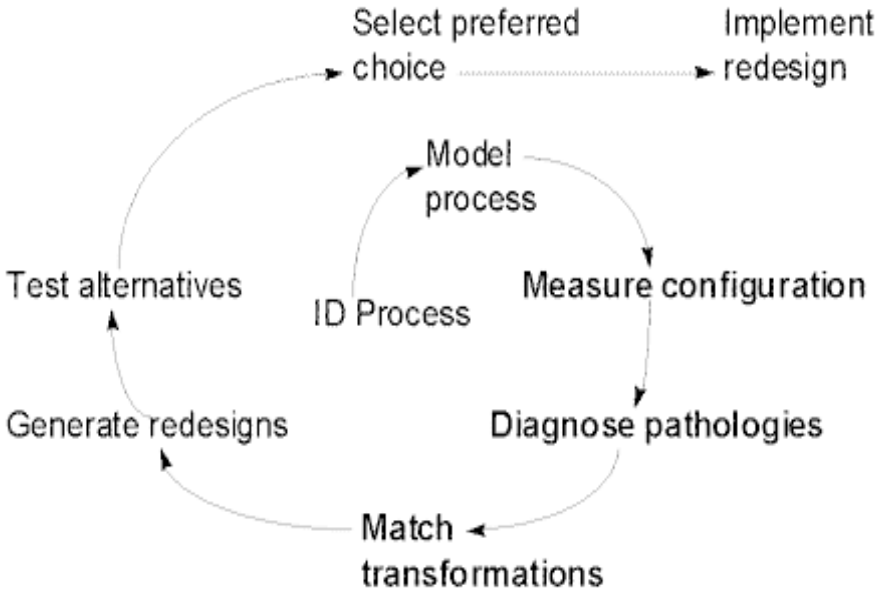
Upon notification that the service member is fit for full duty, the PSD LIMDU Coordinator prepares and transmits a diary message notifying BUPERS-821 and EPMAC that the service member has returned to full duty and available for orders. Once BUPERS-821 receives an availability message, Permanent Change of Station (PCS) orders are generated advising the service member of their new duty station and report date.

A visual representation of the LIMDU flow process using a structured approach termed KOPeR is shown in Appendix A. KOPeR is a systematic assessment and measurement driven analysis and is introduced as a starting point that will lead to robust redesign recommendations, which are presented in Chapter Six. Initial key factors include: cycle time; the length of time it takes to produce the desired output; quality; effectiveness; efficiency; and cost of the redesign. The KOPeR system provides a structured and systematic method for assessing, diagnosing and incorporating transformation steps into the Business Reengineering Process (BPR) and is a proof-of-concept system for Knowledge-Based Systems (KBS).[49] KOPeR also provides two prominent advantages: it provides "analytical consistency," which means it "follows the same understandable and explainable reasoning steps regardless of the specific process being redesigned"; and is the

[49] Nissen, Mark E., "Redesigning Reengineering Through Measurement-Driven Inference," *MIS Quarterly*, pp. 509-534, December 1998.

avoidance of inter-rater bias as it is independent of the individual using the application.[50]

The BPR activities are demonstrated in Figure 15.



Source: From Innovation Brief (2002)[51]

Figure 15. Systematic Process Innovation

The first step is to identify the activities in the process. This is followed by model development depicting the various activities with nodes (squares) and the direction of the output is indicated with arrows. In Figure 16, a graphic example of the process model is demonstrated. Under each node, there is a set of six different attributes that describe characteristics of the activity associated with each node. The following key is used to describe the attributes:

[50] Ibid.

[51] Manpower Modeling & Decision Support Course, Process Innovation Brief, Prof. Mark Nissen, Naval Postgraduate School, Monterey, California, August 2002.

- "A" – Agent; role of person performing the task at a node
- "O" - describes the department in the organization that performs the task
- "S" - describes what type of information technology support is utilized for the task
- "C" - describes the media/technology used for communication in the process.
- "In" - describes the input needed for work to commence at the node
- "Out" - describes the output, produced by the node

A→	B→	C→	D→
A: Agent O: Organization S: IT support C: IT communication In: Input Out: Output	A: Agent O: Organization S: IT support C: IT communication In: Input Out: Output	A: Agent O: Organization S: IT support C: IT communication In: Input Out: Output	A: Agent O: Organization S: IT support C: IT communication In: Input Out: Output

Source: After Process Innovation Brief (2002)[52]

Figure 16. Process Model Example

The next step is to take measurements of the model that will provide a guide for redesigning the process by indicating what type of pathologies or "malignancies" occur in the process. These pathologies are the deficiencies that increase cycle time, increase redundancy, and decrease efficiency and productivity. Table 2 provides an explanation of the measurements.

[52] Ibid.

Table 2. Process Measures Explanation

Measure	Definition
Process Length	Number of nodes in longest path
Process Size	Number of nodes in process model
Process Feedback	Number of cycles in graph
Parallelism	Process size divided by length
IT Support	Number of IT- support attributes
IT Communication	Number of IT communication attributes
IT Automation	Number of IT automation attributes
Organizational Roles	Number of unique agent role attributes
Process Handoffs	Number of inter-role edges, indicate flow of product but not considered feedback
Organizations	Number of unique agent organization attributes
Fractions	Normalizing for process size (divide Measure by process size)

Source: From Process Innovation Brief (2002)[53]

Once measurements are obtained, they are utilized to determine where the process will benefit from introducing a transformation class. Each measurement provides a guide to determine if a pathology, a problem or deficiency, exists in the process under analysis. If it is determined that a pathology exists then it is matched with a transformation class. The next step involves incorporating the redesign transformations into a redesign model of the process and taking additional measurements to assess improvements. This will be discussed in more detail in Chapter Six.

D. CHAPTER SUMMARY

SIQ, light duty, medical hold, and temporary limited duty are all separate entities but are connected by a

[53] Ibid.

common bond, the inability of an active duty member to accomplish workload associated with an assigned billet.

Since an objective of Navy Medicine is to provide a medically ready total force, it is imperative to use all available tools to assist in the management of personnel placed in a temporary medical status category. This objective is also gained through an understanding of the guidance, limitations, follow-up requirements and documentation necessary to place personnel in one of these categories as well monitoring and tracking of personnel in each category.

THIS PAGE INTENTIONALLY LEFT BLANK

V. STAKEHOLDERS

A. OVERVIEW

According to R. Edward Freeman, issues cannot have stakeholders unlike organizations,[54] but further research confirms that this train of thought is not true. Issues just like organizations have stakes and stakeholders with a vested interest in the issue. In this case, the issue, stated as a question is: How does management of personnel in a temporary medical status impact force readiness? Organizations strive to accomplish this by being efficient and effective. Efficiency is defined as the capacity to produce results with the minimum expenditure of time, money or materials[55] – to be efficient is 'to do things well and drive out mistakes,' whereas effectiveness is when the focus is on 'doing the right thing – to be able to adapt and make mistakes through trial and error.' These two terms play an important part in organizational performance, but on occasion's competition for resources; either money or people interfere with the objectives and result in tension among stakeholders.[56]

A stakeholder is an individual or an organization that has a vested interest in a particular topic or issue and its outcome. A stake is the claim each stakeholder has on the organization and can be: tangible (material or

[54] Badnarz, Dan and Wood, Donna J., *Research in Teams, A Practical Guide to Group Policy Analysis* [New Jersey: Prentice-Hall), 1991.

[55] Roberts, N. C., "Organizational Configurations: Four Approaches to Public Sector Management," In J.L. Brudney, L.J. O'Toole, Jr., and H.G. Rainey, eds., *Advancing Public Management: New Developments in Theory, Methods, and Practice*. Washington, D.C., Georgetown University Press, pp. 217-234, 2000.

[56] Ibid.

resources); intangible (time, credibility or power); explicit or implicit. To identify the stakeholders pertaining to this issue it is best to be aware of the parties that have a direct or indirect interest in the particular issue.

B. STAKEHOLDERS MAP

Key stakeholder identification reveals which players have the most relevant interest and impact by the issue. In some cases, the stakeholder may either affect the process or may be affected by the process. To better illustrate this point, the following stakeholders map in Figure 17 helps eliminate any form of hierarchy and imply that all stakeholders or parties have an affect on the issue as well as on the process or outcome of the issue.

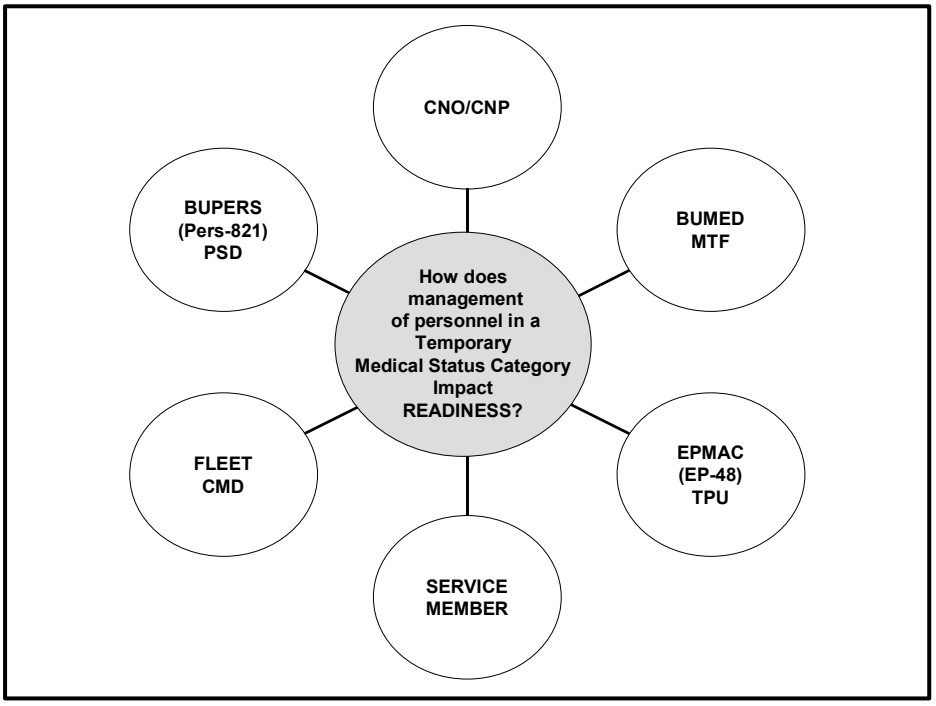


Figure 17. Stakeholders Map

The key stakeholders affecting personnel placed in a temporary medical status are: (1) the Chief of Naval Operations (CNO) and Chief of Naval Personnel (CNP); (2) Bureau of Medicine and Surgery (BUMED) and Medical Treatment Facilities (MTF); (3) Bureau of Naval Personnel (PERS-821) and Personnel Support Detachments (PSD); (4) Enlisted Placement Management Center (EP-48) and Transient Monitoring Units (TMU)-Transient Personnel Units (TPU); (5) fleet commands; and (6) service members.

1. CNO/CNP

The Chief of Naval Operations (CNO) is responsible for the Navy's mission, which is to maintain, train and equip combat-ready Naval forces capable of winning wars, deterring aggression and maintaining freedom of the seas in support of National Security Strategies and meeting the Navy's end strength goal on the last day of each fiscal year (September 30th). If the Navy is not within the allowable limits, the CNO must report to Congress why the Navy was not able to meet those requirements and what steps the Navy will take to ensure future compliance.[57] The CNO is also concerned with the efficiency of the distribution process and is genuine about portraying strong leadership. The Chief of Naval Personnel (CNP) is also concerned with obtaining the proper end strength numbers and keeps watch to properly manage those figures. Additionally, the CNP issues manpower and personnel guidance based on the CNO's policies as well as National Security Strategies.

[57] Short, Melissa, *Analysis of the Current Navy Enlisted Detailing Process.* Master's Thesis. Naval Postgraduate School, Monterey, California, December 2000.

2. BUMED/MTF

On 31 August 1842, Congress passed a Navy appropriations bill that was a blueprint for efficiency and provided legislation for five bureaus to replace the then Board of Navy Commissioners. One of the bureaus established was called Medicine and Surgery with the Chief appointed by the President. Located in Washington D.C., BUMED was the first central administrative organization within the Navy Medical Department, and the Chief of the Bureau and his assistant devoted their entire attention to supervising and managing the Navy's medical service. The Secretary of the Navy later granted BUMED jurisdiction over all Navy facilities concerned with the treatment of the sick and wounded. BUMED's ideals have not changed over the years per their mission statement of: "Our mission is Force Health Protection. We promote, protect and restore the health of our Sailors and Marines, families, retried veterans and all others entrusted to our care, anytime, anywhere."[58] BUMED provides direction to Medical Treatment Facilities by means of polices and procedures and close monitoring of personnel placed in a temporary medical status category. BUMED also works closely with BUPERS to develop joint directives regarding management and disposition of personnel placed in a temporary medical status category. The Navy Medical Department is comprised of personnel in the Medical Corps (MC), Nurse Corps (NC), Dental Corps (DC), Medical Service Corps (MSC), Hospital Corps and dental technicians who can be assigned to a variety of Medical and Dental Treatment Facilities.

[58] Navy Medicine Strategic Plan, https://bumed.med.navy.mil, January 2003.

Medical Treatment Facilities (MTF) are classified into two categories, fixed or non-fixed. Fixed facilities are defined as medical centers, hospitals, or clinics. Non-fixed facilities are medical facilities afloat, with Marine units, and mobile type units such as construction battalions. Personnel assigned to Medical Treatment Facilities accomplish their mission through implementing BUMED directives and guidance to conduct day-to-day operations as well as providing feedback through the chain of command on successes or obstacles of the required tasks and/or programs keeping in mind the health and well being of service members they treat. LIMDU Coordinators are to respond to reevaluation appointment requests and reevaluation status updates in a timely manner, conduct monthly meetings with local LIMDU Coordinators to review and discuss LIMDU cases, and verify and contact parent commands on changes to personnel placed in a temporary medical status category. MedHold Coordinators are to ensure that personnel are attending follow-up weekly appointments and are gainfully employed in a job where medical limitations are taken into consideration.

3. BUPERS/PSD

The Bureau of Naval Personnel (BUPERS) has had many names over the years as it was first referred to as the Office of Detail in 1861 at which time it was created to handle detailing of officers and instruction of volunteer officers. During the same period the Navy established the Bureau of Equipment and Recruiting to handle enlisted recruiting and service record maintenance. In 1862 the Bureau of Navigation was established and in 1865 the Office

of Detail was placed under it and in 1989 the Bureau of Equipment and Recruiting transferred enlisted personnel dealings to the Bureau of Navigation. Today a portion of BUPERS is located in Millington, Tennessee and its mission is: "to support the needs of the Navy by providing the Fleet with the right person in the right place at the right time. We strive to satisfy our Sailors' personal goals and improve their quality of life; we will provide them with meaningful and rewarding career opportunities, promote and retain the best, and ensure fair and equitable treatment of all hands, by all hands, at all times."[59] BUPERS-821 has the responsibility to monitor LIMDU personnel. In addition to those responsibilities, BUPERS-821 administers policy and procedures concerning hospitalization, medical boards, and physical disability separations of officer and enlisted personnel (other than disciplinary involvement). It also reviews and evaluates proposed policy changes affecting Pers-82 and implements active duty enlisted medical/disability separation policy changes by issuing instructions, notices, and manual changes. Personnel Support Detachments (PSD) provide administrative personnel pay and transportation support to tenant commands and operating forces to enhance the quality of life within their community. PSD personnel are assigned as LIMDU Coordinators and are responsible to verify and provide Transient Monitoring Tracking Report (TMTR) and Source Data System (SDS). PSD LIMDU Coordinators contact servicing commands weekly regarding LIMDU personnel as well as holding monthly LIMDU meetings to discuss LIMDU personnel.

[59] http://www.bupers.navy.mil/information/mission, February 2003.

4. EPMAC/TMU-TPU

The Enlisted Placement Management Center (EPMAC) is located in New Orleans, Louisiana and is "to provide centralized management support and act as Manning Control Authority (MCA) agent for distribution of active duty enlisted personnel, following overall personnel management policies established by the Deputy Chief of Naval Personnel (DCNO) (Manpower and Personnel) (N1) and manning policies of MCA's and act as central authority for Transient, Patient Prisoner and Holdee (TPP&H) pipelines."[60] EP-48 is the department within EPMAC that provides day-to-day oversight of tracking the Transient, Patient, Prisoner and Holdee (TPP&H) transient population. It also develops and implements polices and procedures.

Established in July 1975 the Transient Monitoring Unit (TMU) is an agent for the Chief of Naval Personnel and is responsible for monitoring the movement of personnel in transient and LIMDU status. Additionally, TMU reviews and assists PSD's, TPU's and MTF's in the transient process providing recommendations to policies and procedures and training to key players, such as LIMDU Coordinators. Transient Personnel Unit's (TPU) were established to ensure expeditious movement of personnel through administrative, transfer, discipline and/or medical transient status. TPU's monitor and house personnel for commands who due to deployment, operational missions or overseas location, cannot provide appropriate facilities. If there is no Medical Holding Company established at the Medical Treatment Facility TPU's in coordination with the MTF

[60] Mission and Functions of Enlisted Placement Management Center (EPMAC), New Orleans, LA., BUPERINST 5450.34C, 16 Oct 2000.

MedHold Coordinator are tasked to ensure that MedHold personnel are assigned jobs commensurate to their injury or illness.

5. Commands (Fleet and Shore)

Fleet commands that lose personnel due to placement in LIMDU or MedHold status are responsible for completing and returning appropriate paperwork. This paperwork places, monitors and tracks personnel in LIMDU and MedHold categories. Fleet commands that have personnel placed SIQ or on light duty shall be monitored by their respective activities. Shore commands that have LIMDU personnel assigned must make them available to PSD for administrative processing and the MTF for required treatments. The LIMDU Coordinator is responsible for tracking and monitoring all LIMDU personnel assigned to the command. The LIMDU Coordinator shall notify LIMDU personnel of any reevaluation appointments and notify PSD of reevaluation results. Since LIMDU personnel are permanently assigned to a shore command they are responsible for all disciplinary situations or actions that arise while the service member is assigned to the command.

6. Service Members

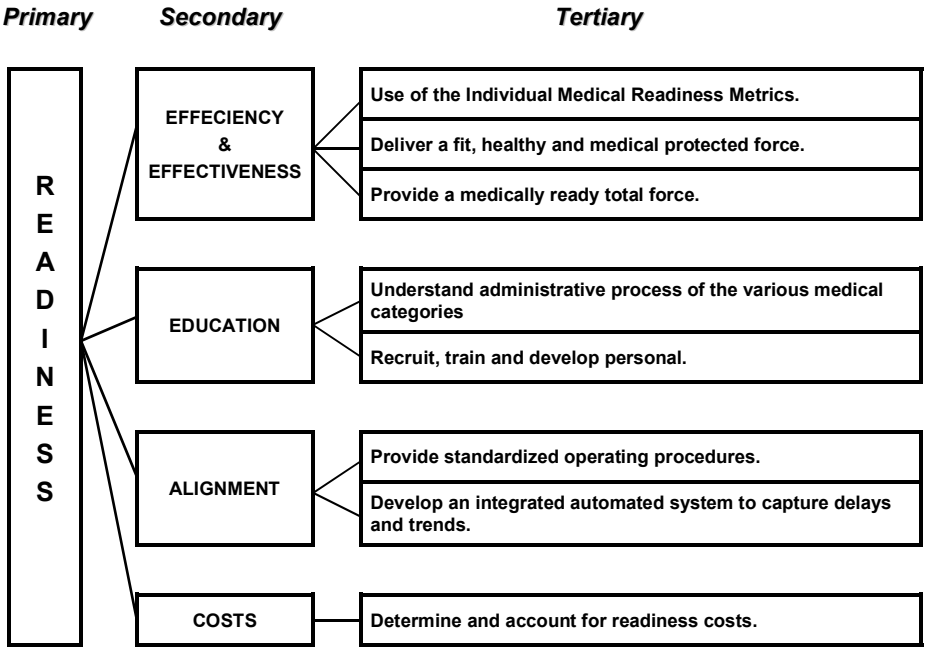
Service members placed in any of the temporary medical status categories are to comply with the limitations and recommendations made by the healthcare provider to ensure rehabilitation during placement in a temporary medical status category. Service members placed in a LIMDU or MedHold status are advised to adhere with the policies and procedures as directed by PSD, TPU or MHC as well as

immediately notifying their chain of command of any appointments, and results or changes in their status.

C. STAKEHOLDER ISSUE SET

An issue set shows how the various stakeholders shown in Figure 17 become involved in the issue when it is somehow related to other important issues. Figure 18 is a medical readiness issue set showing the three levels of stakeholders' values surrounding the issue. They are listed as the primary, secondary, and tertiary issues surrounding force readiness and the ability to ensure prompt return of personnel to full duty status who have been placed in a temporary medical status category.

In this case the stakeholders map issue of: How does management of personnel in a temporary medical status category impact readiness is the primary issue of readiness and displayed in the first column in Figure 18. The secondary issues, seen in the middle section of Figure 18 relates to the management of these temporary medical status categories. They include: efficiency and effectiveness; education and training; alignment; and costs. The tertiary issues are specific statements or objectives needed and required to achieve the secondary issues and ultimate success of the primary issue of readiness. Tertiary issues will be discussed in more detail following Figure 18.



Source: After Issue Set[61]
Figure 18. Stakeholder Issue Set

1. Efficiency and Effectiveness

Objectives of efficiency and effectiveness are listed under the tertiary issues of: use of the Individual Medical Readiness (IMR) metrics; delivery of a fit, and medically protected force; and to provide a medically ready force. These objectives are achieved through optimization of current programs and implementation of the recently developed IMR metrics discussed in Chapter 2. Although many organizations have a stake in optimal readiness, Navy Medicine is aware that they are ultimately responsible for delivering a fit, healthy and medically protected force through the implementation of the Navy Medicine mission of Force Health Protection. Navy Medicine ensures they provide personnel with current health evaluations and

[61] Badnarz, Dan and Wood, Donna J., *Research in Teams, A Practical Guide to Group Policy Analysis* [New Jersey: Prentice-Hall), 1991.

timely and appropriate medical dispositions for placement in a temporary medical status category.

2. Education and Training

Tertiary issues feeding into education and training are: assigning personnel who understand the administrative process of the various medical categories and to provide continuous learning to those personnel involved in tracking, monitoring and processing of temporary medical status personnel. Leadership and mentoring of personnel involved in the management of these programs require continuous learning. Their learning tools range from formalized training of LIMDU and MedHold Coordinators and non-medical personnel on the administrative steps required to placing and tracking personnel in these categories. Improvements to existing automated information systems to enhance monitoring and appointment scheduling of personnel requires training and education.

3. Alignment

Due to the multitude of Navy organizations that share similar missions but have distinct cultures it is crucial to provide standardized operating procedures and guidelines to ensure coordinated tracking and management of personnel in a temporary medical status category. The alignment and communication between Navy Medicine, and operational units can be increased through the development of an integrated information system to capture delays and trends in the process. Current guidance on personnel placed in a LIMDU or MedHold status is given through directives from BUPERS and BUMED. Stakeholders must review this guidance regularly to ensure joint policy compatibility.

4. Costs

Navy leadership is accountable to internal and external organizations for matters concerning readiness costs associated with Navy personnel. The estimated annual LIMDU costs is calculated by taking the monthly average LIMDU population of 4400, shown in Figure 13 and multiplying it by the daily base pay of an E1, which is $38.36 (as of January 2003). This yields $168,784.00 a day that the Navy spends on personnel in a LIMDU status. These personnel do not accomplish their full potential of work. Using the most conservative pay grade of an E1, the annual cost is $60.7 million dollars. Therefore, personnel assigned as LIMDU Coordinators and administrators must aggressively track and monitor personnel placed in any of the temporary medical status categories, and assist in the timely processing of returning service members back to a full duty status or referral to the PEB.

D. CHAPTER SUMMARY

Freeman states that the key to success in any organization is the satisfaction of its key stakeholders.[62] Identification of the key stakeholders involved in the issue of readiness help to determine who or what will be affected most by changes to the management or process of personnel placed in any of the temporary medical status categories. Review of the current guidance and policies as well as understanding 'stakes' or concerns is vital prior to recommending modifications to the process management of personnel which may impact different stakeholders. Buy in from all stakeholders is essential to successful

[62] Roberts, N.C. and King, P.J., "The Stakeholder Audit Goes Public," Organization Dynamics, Winter, pp. 63-79, 1989.

implementation of feedback to the process and must take into consideration all aspects surrounding the issue of fleet readiness.

THIS PAGE INTENTIONALLY LEFT BLANK

VI. REDESIGN OF THE TEMPORARY LIMITED DUTY PROCESS

A. REDESIGN ANALYSIS

The current administrative process of placing fleet personnel in LIMDU is redundant and paper intensive with many opportunities for delays and complex tracking capabilities.

An analysis produced by KOPeR[63] of the current LIMDU process shown in Appendix A provides the fractions and process measurements found in Table 3 based on definitions shown above in Table 2.

Table 3. Process Model

TYPE OF MEASUREMENT	DATA	TYPE OF FRACTION	KOPeR RESULTS
Process Size	16	Parallelism	1.0
Process Length	16		
Handoffs	15	Handoff Fraction	0.938
Feedback Loop	5	Feedback Fraction	0.313
IT Support	0	IT Support Fraction	0.0
IT Communication	8	IT Communication Fraction	0.5
IT Automation	0	IT Automation Fraction	0.0

Source: After Process Innovation Brief (2002)[64]

For example, the LIMDU process is seen as having 16 steps (i.e., length = 16) with 15 handoffs (i.e. handoffs = 15) and a process size (i.e., size = 16) that accounts for the

[63] Nissen, Mark E., "Redesigning Reengineering Through Measurement-Driven Inference," *MIS Quarterly*, pp. 509-534, December 1998.

[64] Manpower Modeling & Decision Support Course, Process Innovation Brief, Prof. Mark Nissen, Naval Postgraduate School, Monterey, California, August 2002.

16 activities and the five feedback loops. IT measurements are derived from IT attributes[65] in the LIMDU process such as: the use of a personal computer; telephone; or Email capabilities. These fractions helped identify the pathologies found in Table 4.

Table 4. Pathology Is Matched With Design Transformation Class And Redesign Alternative

PROCESS PATHOLOGY DIAGNOSIS	RECOMMENDED TRANSFORMATION	REDESIGN ALTERNATIVE
Problematic process structure + review-intensive process	Delinearize (approvals)	Concurrent review Re-organize organizational flow
Under-utilized human potential + Deficient core competency	Training and Incentives	Organization wide training plan
Manual process + paper-based process + process friction	IT support and IT communication: Shared database + e-mail	Electronic document infrastructure + use of e-mail.
Job specialization + process friction + checking and complexity	Empowerment + case teams + case manager	Job enlargement for the PT admin coordinator and hospital corps staff

Source: After Process Innovation Brief (2002)[66]

The KOPeR results for the baseline LIMDU process shown in Table 3 indicate the LIMDU process pathology diagnosis, and displayed in the first column of Table 4. For instance, the KOPeR result for the fraction parallelism is 1.0, indicating a "sequential process flow." This means that before the next step in the process begins, it must wait for the previous step to finish. Increases in the resulting measurement fractions indicate an improvement in

[65] Ibid, p514.

[66] Nissen, Mark E., "Redesigning Reengineering Through Measurement-Driven Inference," *MIS Quarterly*, pp. 509-534, December 1998.

the following: parallelism; IT support; IT communication; and IT automation. A decrease in the fraction is an improvement in the following: handoffs and feedback. In the second column of Table 4, the matching recommended transformation classes are listed. The third column contains the redesign alternatives for the LIMDU process, which are the basis for the three redesigns generated in this thesis. The redesign alternatives for the LIMDU process, based on KOPeR, the redesign tool, will be explained in each process redesign whenever they are applied.

1. Redesign Alternative Number One

LIMDU Process Model Redesign One can be found in Appendix B. Table 5 indicates the measurements obtained for the LIMDU process model Redesign One and are compared to the baseline LIMDU process model in Table3.

Table 5. Measurements For **Redesign One** Of The LIMDU Process Model, Compared To Baseline LIMDU Process Model

TYPE OF MEASUREMENT	BASELINE DATA	REDESIGN ONE DATA	TYPE OF FRACTION	BASELINE KOPER RESULTS	REDESIGN ONE KOPER RESULTS
Process Size	16	15	Parallelism	1.0	1.154
Process Length	16	13			
Handoffs	15	14	Handoff Fraction	0.938	0.933
Feedback Loop	5	3	Feedback Fraction	0.313	0.2
IT Support	0	0	IT Support Fraction	0.0	0.0
IT Communication	8	15	IT Communication Fraction	0.5	1.0
IT Automation	0	0	IT Automation Fraction	0.0	0.0

Redesign number one addresses the pathology, or process problem, related to sequential process flows and review-intensive process. The baseline process measurement for parallelism of 1.0 indicates the pathology of a sequential process. Specifically, a sequential process is where one activity has to wait on another activity before it can start its job. This problem has the potential to increase cycle time as it introduces multiple delays into the process. In the LIMDU process, specific evidence for delay is encountered when the parent command needs to endorse the LIMDU report and then send it to the relevant personnel office or PSD. Depending on the parent command's intrinsic motivation and leadership styles the LIMDU report may be held for long periods of time. Therefore, long delay in the reassignment process of service members introduce longer cycle times.

The recommended matching transformation involves delinearization of the process. This will occur through concurrent reviews where the parent command and the Patient Administration Department receive the form directly from the Convening Authority. They will perform concurrent review but it's the output from the Patient Administration Department that becomes the necessary input for the personnel office or PSD to initiate the procurement of reassignment orders for the service member. This will avoid inherent delays associated with the parent command's endorsement of the LIMDU report.

The second delinearization involves the adjustment of duties in the MTF and the PSD. EPMAC sends a message to the MTF specifying the LIMDU service member's shore command

information. However, it is the PSD that receives the orders for the sailor. Also, it is PSD that requests a re-evaluation appointment from the MTF 90 days prior to the expiration of the LIMDU period. At this point significant delays may occur. These types of delays increase cycle time as well as create redundancy of effort as PSD repeatedly calls the MTF. Again, delinearization of the process is the recommended transformation for the two activities of scheduling the appointments and notifying the service member. Since the MTF received the information message from EPMAC regarding the service member's newly assigned command, it will be the MTF who sends the order modification to the service member with the required appointment. The appointment is scheduled at least 60 days prior to the end of the LIMDU expiration period as per instruction. The MTF will be solely responsible for scheduling and notifying the service member.

The rest of the process is left intact because each node in the LIMDU process is dependent on the output from the previous node. However, the redesign targets four nodes with the potential to cause the greatest increase in cycle time. This redesign alternative involves a large change to organizational culture as the parent command may be viewed as losing its power in the LIMDU process. In this redesign they are only notified of the service member's placement in LIMDU. The MTF will assume a greater degree of responsibility, as they have to track the dates for each sailor in limited duty status so they can schedule the required appointments. Although, the parallelism measure for redesign one is 0.154 more than the baseline,

cycle time will decrease significantly as a result of the delinearization described above.

During the process assessment, it was noted that communications for the most part are conducted by means of phone calls and guard mail envelopes. A paradox exists here as with all the agents in the process that have a Personal Computer (PC) on their desks but are not using it to send Email notification to the next agent in line. The lack of Email use for communication involving LIMDU issues results in the pathology of inadequate IT Communications with a low IT Communication measurement fraction of 0.50. The recommended transformation is to utilize the Email capabilities of the current applications in their PCs to communicate between nodes in the process. In redesign one, the IT communication fraction is 1.0, as every node utilizes Email to communicate between nodes. However, the LIMDU report is still delivered manually. Appropriate protocols for Email use will speed up communications between activities.

The last pathology addressed in redesign one is the under-utilized human potential and the excessive checking and complexity of the process. The measurement is obtained from the feedback fraction of 0.313 due to the 5 feedback loops in the baseline LIMDU process model. The recommended transformation is training and incentives. The associated training is a key aspect of the redesign. Training and incentives will cut the number of feedback loops by three for a total of two in redesign one. This is a definitive improvement for the pathology of checking and complexity. This will provide a feedback fraction of 0.2, which is an

improvement over the baseline LIMDU process model of 0.313. Training is particularly important in an organization where the agents may change jobs anywhere from one to every three years. Training should be performed to address the requirements of the LIMDU policy, new responsibilities, performance criteria and organizational requirements. Therefore, it is recommended that training be composed of formal classroom training followed by individualized modules that address the performance criteria for each agent at each activity. In addition, on-the-job training is also beneficial and should be utilized in conjunction with classroom training. However, on-the-job training should not be performed as the only training element. Overall, the expected outcome of implementing a thorough training plan is that it shortens the time required for decision-making and decreases the length of delays. A well-defined training plan with appropriate implementation and evaluation is a key element to the success of the redesign decreasing the potential for failure.

In summary, the sequential process is delinearized and improved by increasing the parallelism measurement from the baseline measurement of 1.0 to 1.154. The IT communications fraction is improved from 0.50 to 1.0 since all agents utilize Email to communicate across nodes. Finally, training decreases the need for so many feedback loops remedying the pathology of checking and complexity. The feedback fraction decreases to 0.2 from 0.313. The resulting benefit is a decreased cycle time and increased fleet readiness as sailors are processed faster through the LIMDU process.

2. Redesign Alternative Number Two

LIMDU Process Model Redesign Two can be found in Appendix C. Table 6 indicates the measurements obtained for the LIMDU process model Redesign Two. They are compared to the baseline LIMDU process model in Table3.

Table 6. Measurements For **Redesign Two** Of LIMDU Process, Compared To Baseline LIMDU Process

TYPE OF MEASUREMENT	BASELINE DATA	REDESIGN TWO DATA	TYPE OF FRACTION	BASELINE KOPER RESULTS	REDESIGN TWO KOPER RESULTS
Process Size	16	16	Parallelism	1.0	1.0
Process Length	16	16			
Handoffs	15	15	Handoff Fraction	0.938	0.938
Feedback Loop	5	2	Feedback Fraction	0.313	0.125
IT Support	0	15	IT Support Fraction	0.0	0.938
IT Communication	8	15	IT Communication Fraction	0.5	0.938
IT Automation	0		IT Automation Fraction	0.0	0.0

The second redesign addresses the lack of IT Support and IT Communication in the current process. The pathology class is *inadequate IT support* as evidence by an IT support fraction measurement of zero. Associated pathologies are a manual process, paper-based process, and process friction. The transformation classes that match this pathology are IT Support, training of personnel and maintenance of the IT. The design introduces change to the IT infrastructure with the addition of IT support applications.

A shared database will give the user the ability to query the system and to produce the various required reports. The ability to query the system addresses three major issues. The first issue deals with the inability of the current system to accurately monitor the existence of prior LIMDU boards. This is evidenced by one of the major dissatifiers presented by the former BUPERS -821, Department Head.[67] It is particularly important to address this issue, as the loss of LIMDU reports is an inherent problem of the paper-based system. In this system, the member may have more than one LIMDU report during their career but no record of it is found in the medical record. This error is resolved with a shared database. When the database query is accomplished requesting past LIMDU episodes, the report indicates if a prior LIMDU report was created and dictates appropriate action by the involved healthcare provider. This avoids abuse of the system as a service member is appropriately referred to the PEB process. The scope of this research does not cover the PEB process.

The second issue deals with the generation of required reports with the appropriate data to assist decision makers. A shared database facilitates the generation of the number of reports that are part of the LIMDU policies. Those who need the information to make decisions generate the reports.

The third issue revolves around the ability to track service member's LIMDU status. This is another dissatisfier previously addressed. The issue deals with

[67] Email Correspondence between, LT Mark Wilsey, LIMDU Section, BUPERS-821, Millington, TN and the author, November 2002.

the inadequate tracking system by the shore commands assigned LIMDU personnel. Therefore, if the shore command has access to the database, they will be able to track the service member efficiently and with only a small amount of effort.

In addition to the shared database, an electronic document management (EDM) is recommended as part of the IT infrastructure. The EDM, an IT support system, allows LIMDU administrators to use web browsers to interact via the internet/intranet. Administrators will be able to access documents, update documents, and send documents over the Internet. There are several advantages to EDM.[68] First, it effectively increases the legibility of the LIMDU Report. This is of particular importance since the current paper-based, carbon copy form may have ineligible handwriting and/or the writing may not have transferred to the last four pages of the form. The second advantage is that electronic documents are easily updated. Therefore, whenever a required change is done at the policy implementation department it is immediately distributed to the end-user. Recommendations are made to all pertinent directives related to the LIMDU process for incorporation in the EDM. A third advantage is that electronic documents are interactive. They have forms with pop up boxes that guide the end user to enter the appropriate information and prevent users from entering data outside of the required range. This addresses a third dissatisfier. The EDM will help catch and prevent errors, as the appropriate parameters will be embedded in the EDM.

[68] Long, Larry and Long, Nancy, *Computers*, Prentice Hall, New Jersey, (2001).

Additional advantages arise because the documents are searchable and tied together through hyperlinks. These advantages allow the end user to search for information that will assist administrators and coordinators, not only on the LIMDU report but also in the whole process.

Another use of IT utilization is the use of Email. As stated in Redesign Number One, the ability to send Emails is currently available to all agents in the process. Policies need to be implemented to describe when and how to notify other agents in the LIMDU process.

The implementation of IT Support Systems such as shared databases, electronic document management, and the use of Email will directly impact cycle time and probably cost. However, for these IT systems to function appropriately, training becomes an integral part of the redesign. Training will be IT intensive as agents will need to learn the applications as well as how to query the system. The training includes interactive classes where the students interact within the applications training module. Learning about the process requirement could be managed via the Navy's E-learning Center, as it is a web enabled, interactive learning source. It is imperative that training be an integral part of the IT infrastructure requirements of the redesign. Training is the key that will open the door to the benefits available as a result of decreased cycle time, increased staff competency, and overall satisfaction. Failure is often the result of inadequate or nonexistent training.

The final portion of this redesign involves a plan for IT maintenance of the IT System implemented. This is a

continuous process and will definitely add to the overall cost of the design. However, this cost has to be compared to the savings obtained from decreasing cycle time and the resulting increased fleet readiness.

In summary, recommendations for Redesign Two are the addition of a shared database and the EDM. This increases the IT support measurement from 0.0 in the baseline model to 15 in Redesign Number Two. The use of Email increases the baseline IT communication measurement from 8 to 15. Training will assist in reducing the feedback loops from 5 to 2. The potential benefit is a decrease in cycle time, increase patient and staff satisfaction, and fleet readiness.

3. Redesign Alternative Number Three

LIMDU Process Model Redesign Three can be found in Appendix D. Table 7 indicates the measurements obtained for the LIMDU process model Redesign Three and is compared to the baseline LIMDU process model in Table 3.

Table 7. Measurements For **Redesign Three** Of LIMDU Process Model Compared To Baseline LIMDU Process Model

TYPE OF MEASUREMENT	BASELINE DATA	REDESIGN THREE DATA	TYPE OF FRACTION	BASELINE KOPER RESULTS	REDESIGN THREE KOPER RESULTS
Process Size	16	16	Parallelism	1.0	1.0
Process Length	16	16			
Handoffs	15	15	Handoff Fraction	0.938	0.938
Feedback Loop	5	2	Feedback Fraction	0.313	0.125

IT Support	0	0	IT Support Fraction	0.0	0.0
IT Communication	8	15	IT Communication Fraction	0.5	0.938
IT Automation	0	0	IT Automation Fraction	0.0	0.0

The third redesign addresses the following pathologies. They are *checking and complexity*, *process friction*, *poor IT communication*, *and under-utilized human potential*. The measurements indicative of these pathologies result from the following fractions:

- A Handoff fraction of 0.938, which indicates process friction.
- A Feedback fraction of 0.313, indicating checking and complexity.
- IT communication of 5 indicates low IT Communication. The pathology of under-utilized human potential is indicated by the handoff and feedback fractions.

Redesign Three recommends that the Leading Chief Petty Officer (LCPO) of Patient Administration become a case manager. In this new position, the LCPO will have increased responsibility for the management and flow of LIMDU boards across the Patient Administration Department. Although, the LCPO is unable to physically assume jobs of different activities, the LCPO will assume some of the tasks of the Patient Administration Officer. The Patient Administration Officer will be a source of vision and strategy for the department and proactively seek out innovative ideas.

On the other hand, the LCPO, as a case manager, will ensure that a case team is implemented. A case team is the transformation class to solve the checking and complexity pathology currently present in the process. The case team is made up of LIMDU coordinators from the various activities in the shore commands, MTF, and PSD. Clearly set goals and objectives for the team need to be part of the guidance provided by the LCPO as the case manager. These goals and objectives allow the team members to first understand the reasons behind their meetings and secondly provide direction by identifying tasks. Since the team knows what it needs to do and the challenges, they can decrease the amount of re-checking currently present in the process. However, a poorly defined team that does not have clearly defined goals and objectives becomes dysfunctional and quickly losses its purpose. Therefore, clear guidance from the top of the organization is required.

A second recommended redesign is empowerment of the MTF LIMDU Coordinator. Currently, the LIMDU Coordinator is not allowed to make reevaluation appointments in CHCS. They have to call or walk over to the appointment clerk to make the necessary appointments. This increases the amount of time required to set up the appointment. It is interesting to note that the delay is not only 20 or 40 minutes, but rather it might be days before the appointment is made. Sometimes it requires the PSD LIMDU Coordinator to contact the MTF LIMDU coordinator more than once to set up the appointment. Consequently cycle time can be significantly decreased when the MTF LIMDU Coordinator is able to make the appointment while they are on the phone

with the PSD LIMDU Coordinator or upon receipt of the reevaluation message or Email from PSD.

This redesign also involved the use of the transformation recommendation involving training and incentives. Training needs to cover all of the agents involved in the system, including physicians. As in Redesign Number One, the training includes a formal section as well as on-the-job training. Since this redesign involves a case team as part of the proposed solution, team training will also need to be developed and implemented.

Incentives need to be part of the redesign because you are assigning greater responsibilities. Although training helps them gain an understanding of their job and responsibilities, it is the incentives that drive the motivation behind their actions.

The last pathology deals with low IT communication. Again the same paradox regarding Email usage applies. Even though it is easily available to all agents, it is not being done. Again, a policy that covers the protocol for Email notification throughout the flow of the LIMDU process will have a positive impact on cycle time.

In summary, a case manager with the accompanying case team will assist in decreasing process friction. Although, the decrease usually occurs by combining duties, we feel that the decrease in process friction indirectly results from the joint efforts of the case team members. A faster resolution of problems occurs as the members share common goals and objectives. KOPeR does not provide this type of indirect measurements. On the other hand, a change is detected in the checking and complexity as the feedback

fraction decreases to 0.125 from 0.313. This decrease results from a decrease in the number of feedback loops from 5 to 2. Training also helps improve the process friction and checking and complexity pathologies. Also, without training, empowerment is viewed as additional work. Incentives also motivate workers when they undergo job growth. Finally, IT communication measurements increase from 8 to 15 when agents use e-mail on a consistent basis to communicate. The benefits from the LIMDU process model redesign three will be the gains obtained from increased patient and staff satisfaction. These gains in satisfaction will decrease cycle time through the increased motivation and job satisfaction demonstrated by the staff. The ultimate benefit will be increased fleet readiness.

B. REDESIGN RECOMMENDATION

In order to arrive at a recommended course of action to improve the Temporary Limited Duty Process Logical Decisions for Windows (LDW) was used as a decision tool. Logical Decisions® (LDW) is decision support software that helps to evaluate and select the best choice for your most difficult decisions. LDW is designed for one-of-a-kind decisions where you need to think about many concerns at once and make judgments about which concerns are most important to you.[69]

LDW added in the decision process regarding redesign alternatives in the improvement to the Temporary Limited Duty Process. It helped organize information about the three redesign alternatives, make the value judgments

[69] www.logicaldecisions.com, January 2003.

needed and find the best alternative, and display results to obtain insights into the redesign alternatives.

LDW organizes evaluation measures into a structure, like an organization chart, that shows how our individual concerns (like "cost of redesign") relate to the overall concerns (like "implement alternative with best overall improvement in efficiency"). This powerful feature turns an ordinary data table into a sophisticated hierarchical database that links detailed information into broad overall goals. It turned an incomprehensible mass of information into a roadmap that pointed the way to the best decision. Value judgments were a crucial part of our decision. LDW draws on tools from an academic discipline called "Multi-Attribute Utility Theory" to help make the value judgments needed for a particular decision. One type of judgment is the relative importance (weights) of the evaluation measures. LDW provides several methods to help make these judgments, and lets you use the method you are most comfortable with. LDW provides five different methods for assessing weights, ranging from the easy-to-use "Smarter" method, to the sophisticated "tradeoff" method. The "Smarter" method was chosen due to its ease of use and past experience.

LDW provides results and displays designs to give insight to assist in making the final choice. Each choice is ranked from best to worst on any goal or evaluation measure and comparisons between pairs of choices to identify their most important differences. Charts and interactive displays can also be used to see the effect of changes in weights on the overall ranking results.

Finally, you can see the effects of uncertainty on the ranking results.

The decision analysis used is LDW because it makes excellent use of the Windows interface and is easy to install. The program handles an unlimited number of alternatives, criteria and goals. The evaluation measures are flexible. Alternatives can be rated on the scale of your choice, be it continuous or discrete, increasing or decreasing. LDW has three easy steps:

- Structure the Problem
- Assess Preferences
- Review the Results

During the first step, "Structure the Problem," alternatives are defined, which were three redesigns for the Limited Duty Assignment Process. Next, variables (measures) are defined as cost, degree of culture change, ease of transitioning back to the original state and amount of training necessary to implement the redesign. Finally, goals were defined that would be used to organize the measures. It is understandable that the cost of implementation was going to be an important factor since the Navy is under major budgetary constraints. The degree of culture change to be experienced is also a major factor since many of the stakeholders of the Limited Duty Process are cemented on their ways and would really feel the impact of a major redesign. The introduction of IT infrastructure into an organization that is accustomed to paper and pencil will require a large amount of training and it will be very

difficult to revert back to its original state once implemented.

In the second step, "Assess Preferences," a decision to compare and prioritize the different elements is made. Judgment about the relative importance of the different measures and goals is the most challenging part of this decision analysis process. First, the measure scales are converted to common units (called utility). This phase is like converting bananas and lemons to a common currency, called "utiles." Then the weights are assessed for the measures in order to give each measure and goal its proper importance. At this point LDW is told that "banana utiles" are more important to the picture than "lemon utiles." Preference Sets are then obtained for the decision. These preference sets perceive and evaluate the same data set using different viewpoints, and helped focus in on those judgments that make a critical difference in making the final decision. A scale of 1 to 3 for the different measures is applied. A number 1 means it is the best in its category and a number 3 means it is the worst. The redesign alternative with the highest cost was assigned a number 3 in this category and the redesign alternative with the lowest price tag was assigned a number 1. This meant that high cost is undesirable. High degree of culture change got a number 3, low degree of culture change got a number 1. The redesign alternative with the greatest ease of transitioning back got a number 1 and the most difficult to transition back got a number 3. Large amount of training required got a number 3; lowest amount of training required got a number 1.

Once all of the preference assessments were completed, the various alternatives were ranked. Cost was determined to be the number one priority, followed by degree of culture change, training required, and ease of transitioning back to the original state. LDW provided a wealth of displays that provided considerable insights into why the redesigns ranked the way they did. The results displayed are shown in Figures 19 through 24 and are very important in explaining the decision to recommend Redesign Number Two.

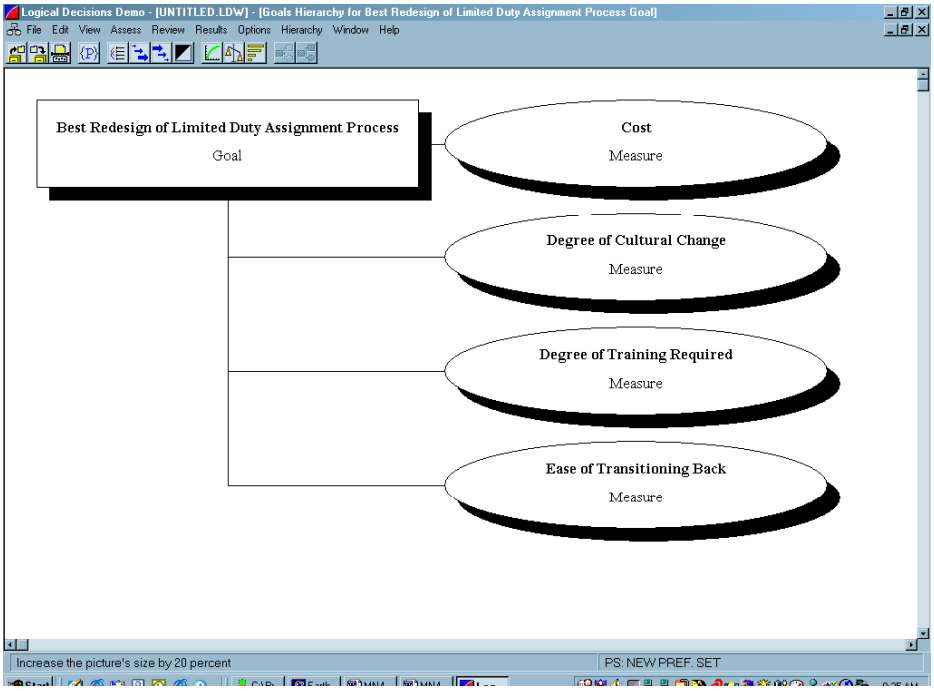


Figure 19. Goal Hierarchy View From LDW

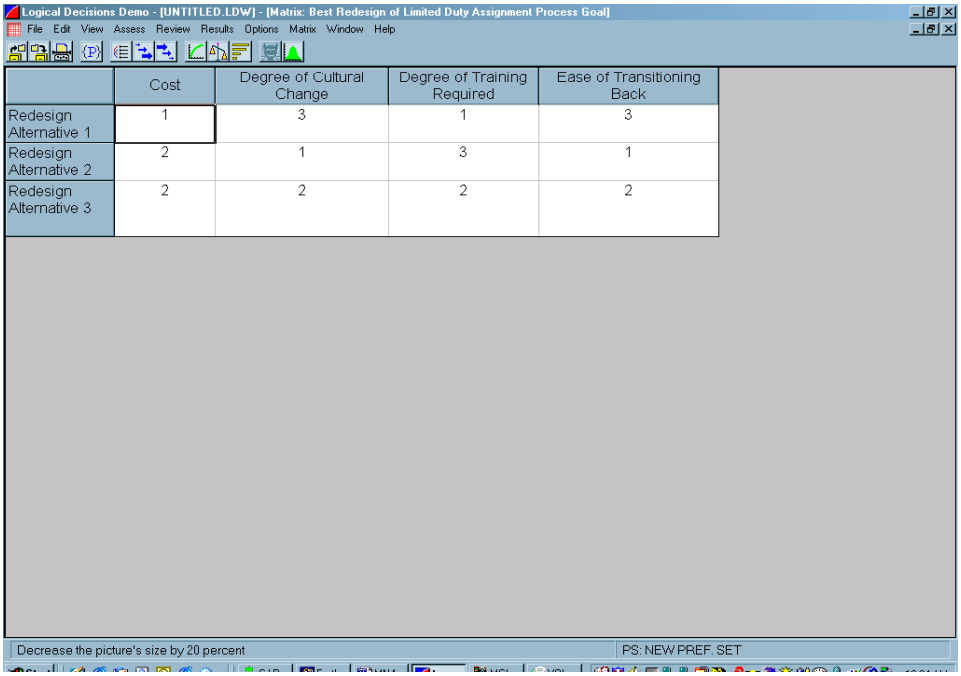


Figure 20. Matrix View From LDW

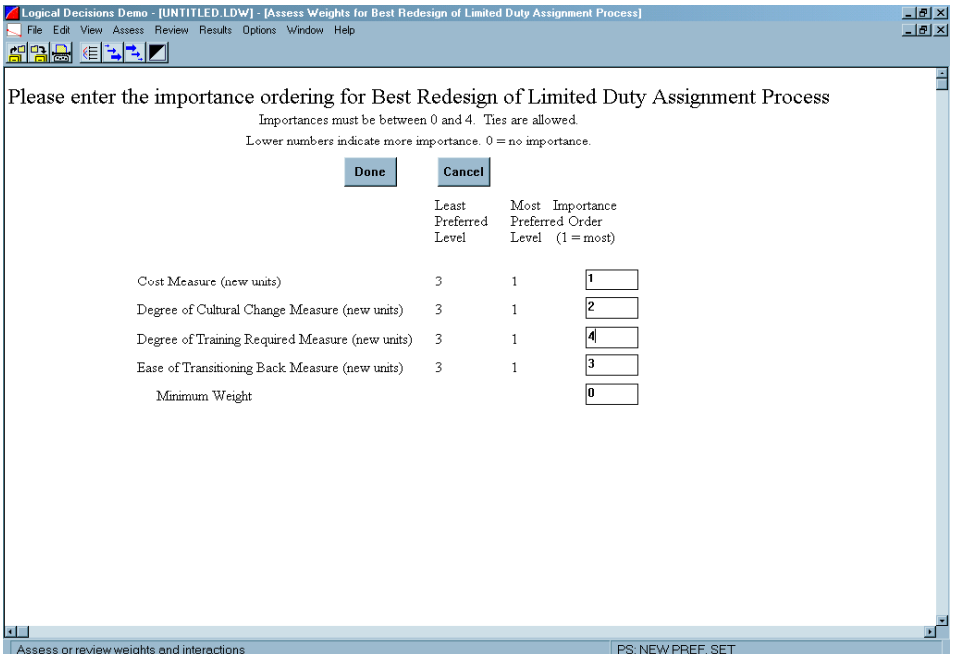


Figure 21. Preference Ranking From LDW

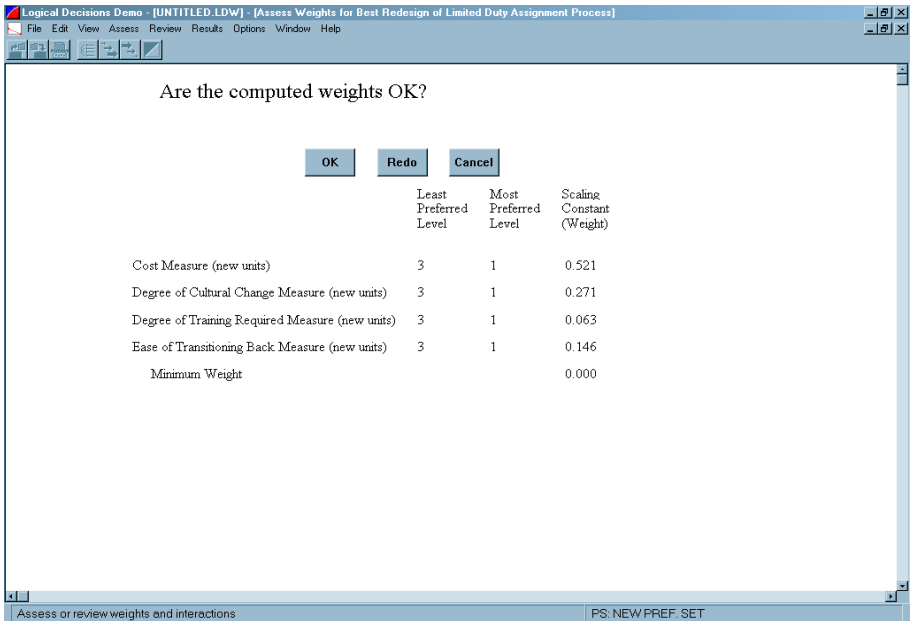


Figure 22. Computed Weights From LDW

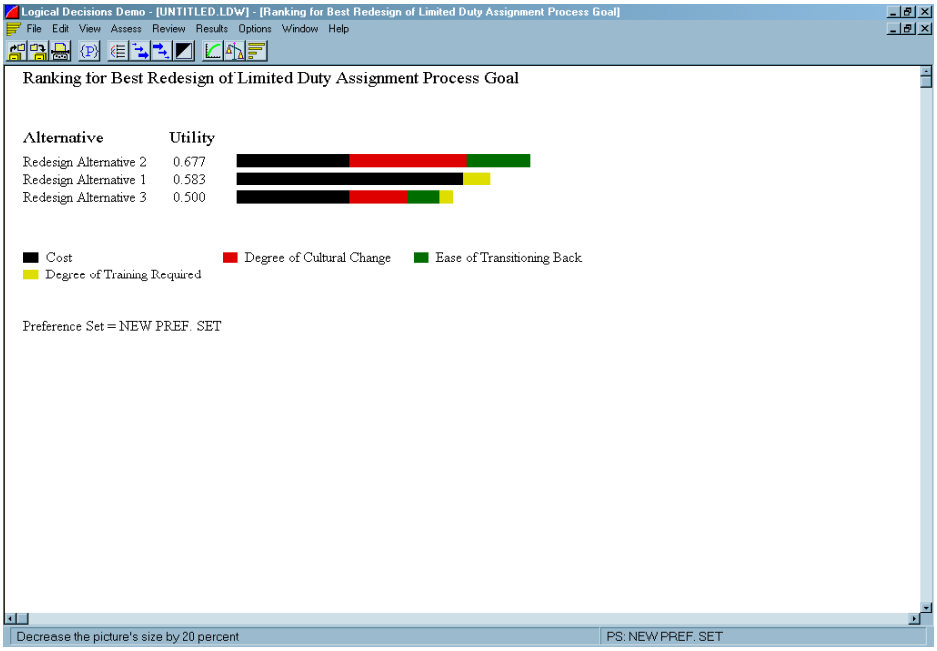


Figure 23. Stacked Ranking Of Redesign Alternatives Form LDW

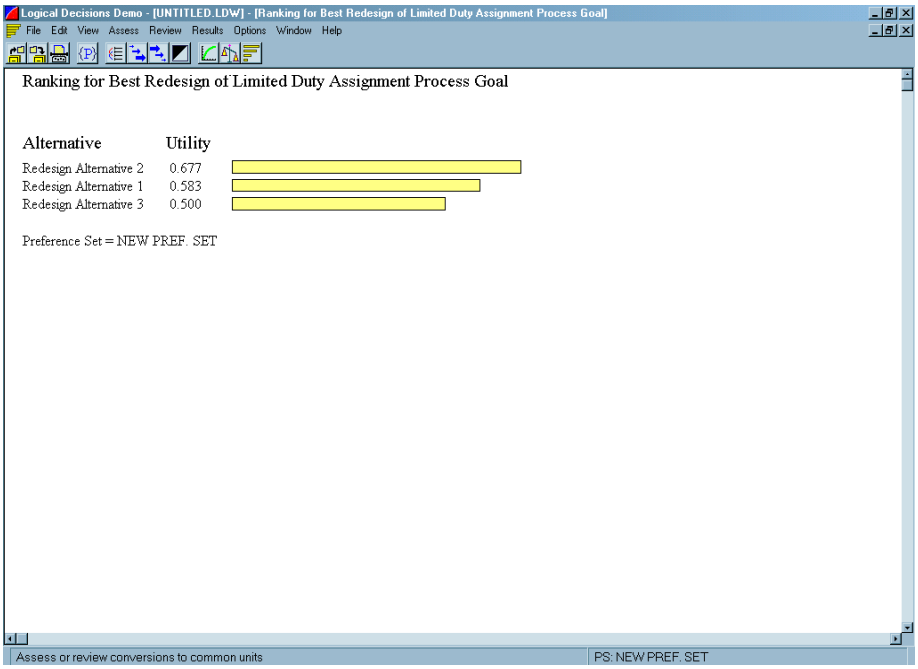


Figure 24. Ranking For Best Redesign From LDW

In summary, through the use of KOPeR's systematic assessment and measurements and following LDW's three easy steps of: structure the problem; assess preferences; and review the results, a recommended redesign was selected. This redesign of the current LIMDU process to an electronic submission and routing of the Abbreviated Temporary Medical Board Report would increase tracking capabilities reduce paper work errors, which cause delays.

THIS PAGE INTENTIONALLY LEFT BLANK

VII. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A. SUMMARY

Personnel placed in a temporary medical status category are removed from their primary work assignment leaving workload to other members in their unit. If personnel are placed SIQ or light duty, this absence is minimal, and the responsibility for any follow up medical attention is placed on the service member and their chain of command. The service member's chain of command and medical department manage the personnel in these two categories until their timely return to full duty; otherwise, they are referred to a specialist for evaluation and possible placement in MedHold, LIMDU or referral to the PEB. If the service member is placed in MedHold or LIMDU, fleet readiness decreases as personnel in these two categories are temporarily or permanently removed from the fleet. In the case of MedHold, the service member may be temporarily removed from the fleet for up to 60 days. Personnel placed in MedHold are temporarily assigned to a Medical Holding Company (MHC) or Transient Personnel Unit (TPU) to receive the outpatient medical care required to assist in the healing process and recovery to a full duty status. MedHold Coordinators ensure that personnel assigned to MedHold abide by their medical limitations, attend weekly follow-up appointments and accomplish work that takes into account their medical condition, illness or injury.

Improper management of MedHold personnel directly affects fleet readiness. Fleet commands must be proactive

and follow up on their personnel to ensure they receive the required medical care as well as any administrative support to function while temporarily assigned elsewhere. When a service member is placed on LIMDU they become an unplanned loss to the fleet. Depending on personnel inventory at the time of the unplanned loss the requirement may not be immediately filled, leaving the fleet undermanned, which decreases fleet readiness. Once a service member is placed LIMDU and is permanently transferred from the fleet, LIMDU Coordinators are responsible for the timely processing, and tracking of LIMDU personnel while monitoring their care to assist in their return to full duty or referral to a second period of LIMDU (Departmental Review) or PEB. The key stakeholders are: 1) Chief of Naval Operations (CNO); 2) Chief of Naval Personnel (CNP); 3) Bureau of Medicine and Surgery (BUMED) 4) Medical Treatment Facilities (MTF); 5) Bureau of Naval Personnel (BUPERS-821): 6) Personnel Support Detachments (PSD); 7) Enlisted Placement Management Center (EPMAC); 8) Transient Personnel Unit (TPU); 9) Fleet Commands; and 10) Service Members. Collectively, stakeholders ensure that service members receive appropriate medical care and time to recover from their medical condition, illness or injury in order to return to full duty status.

B. CONCLUSIONS

Aggressive tracking and processing of service members in each of these temporary medical status categories is vital to force readiness. Healthcare providers, administrators and coordinators must have available to them the appropriate training and learning tools to better

manage the processes. Training for personnel responsible for the placing service members in LIMDU and MedHold is informal, except in the rare occasions when a Medical Board Coordinator, who receive formal training, handles both Medical Board and LIMDU management responsibilities

C. RECOMMENDATIONS

Implementation of Redesign Two presented in Chapter Six, which will increase tracking capabilities and assist administrators with the mananagement of monitoring fleet personnel placed in LIMDU. Key guides to or elements of successful change must back a migration strategy. The following guides provide the framework for thinking about how to affect change in the Temporary Limited Duty Process.

- Make a compelling case for change
- Treat each situation initially as unique
- Put all change in a context of larger purposes and missions
- Develop a vision of the future to guide today's actions
- Take a systems approach to the change process
- Understand the impact of change on the people in the organization
- Involve all the stakeholders
- Collect only essential information
- Recognize that change is never finished
- Persevere in seeking change, it takes a long time

These will serve as checkpoints for the decision maker tasked with this migration implementation and will prove useful when implementing Redesign Number Two. There must also be overall change in the organization and buy in from all stakeholders and starting at the top is key to a successful implementation. Implementation of Redesign Number Two will require a careful analysis of how to implement the IT infrastructure and the change in organizational structure, which are subjects for further research.

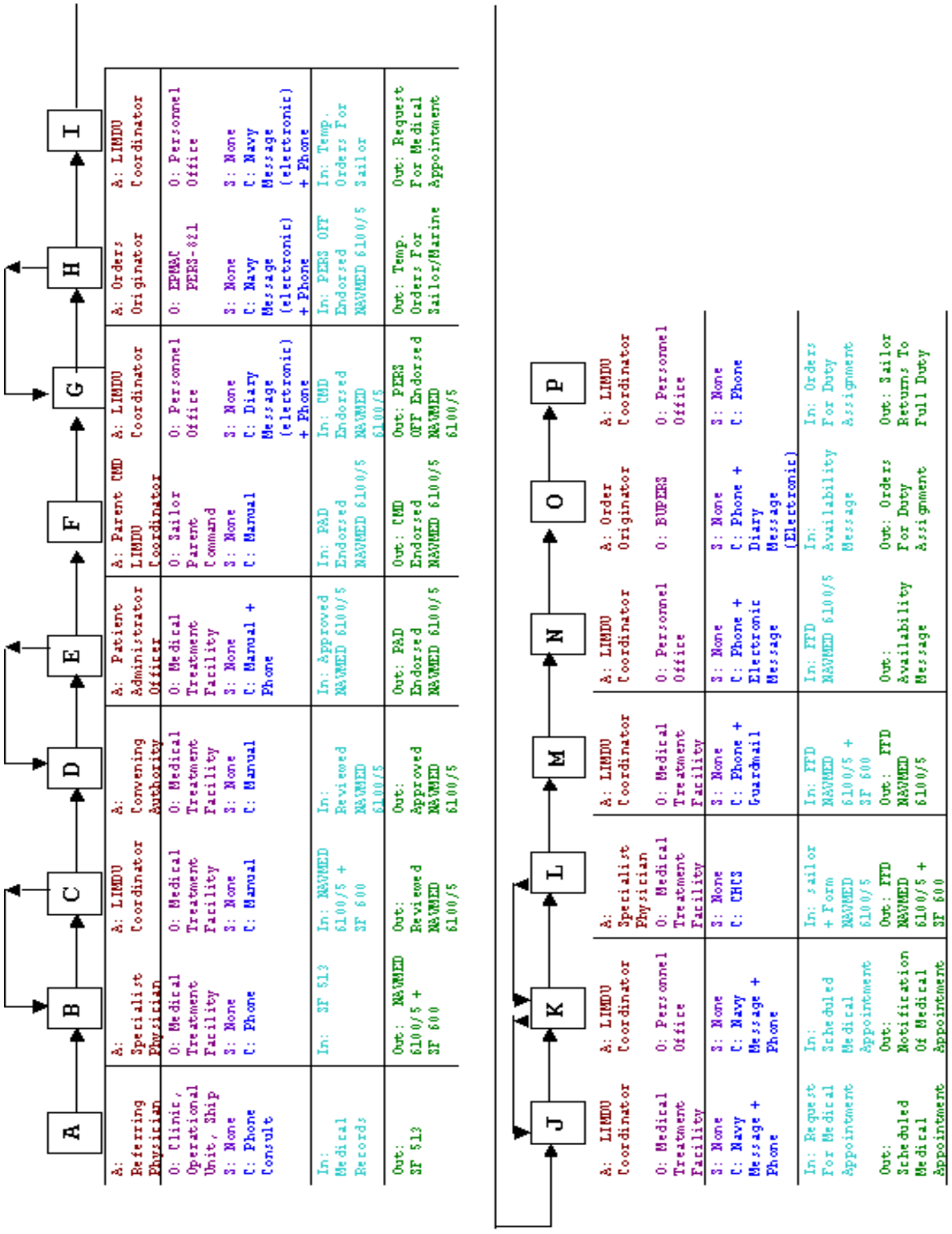
In addition, incorporation of the developed matrix and information shown in Table 1 into the Patient Administration Handbook already available online and medical and fleet pipeline programs will provide guidance on the various temporary medical status categories to numerous users. Establish formal training for coordinators to offer direction on pertinent directions and management of personnel placed in a temporary medical status category. Information systems and resources also need to be developed and shared to increase communication, awareness, and alignment among medical, fleet and support commands. All of these recommendations will provide information to assist stakeholders at all levels of the organization on the various medical status categories

D. AREAS FOR CONTINUED RESEARCH

Research the management of active duty shore enlisted personnel in TLD status and its impact on readiness.

Research the feasibility of developing a central database information system to track and monitor all Navy enlisted TLD personnel, afloat and ashore.

APPENDIX A. MODEL FOR BASELINE OF THE LIMDU PROCESS

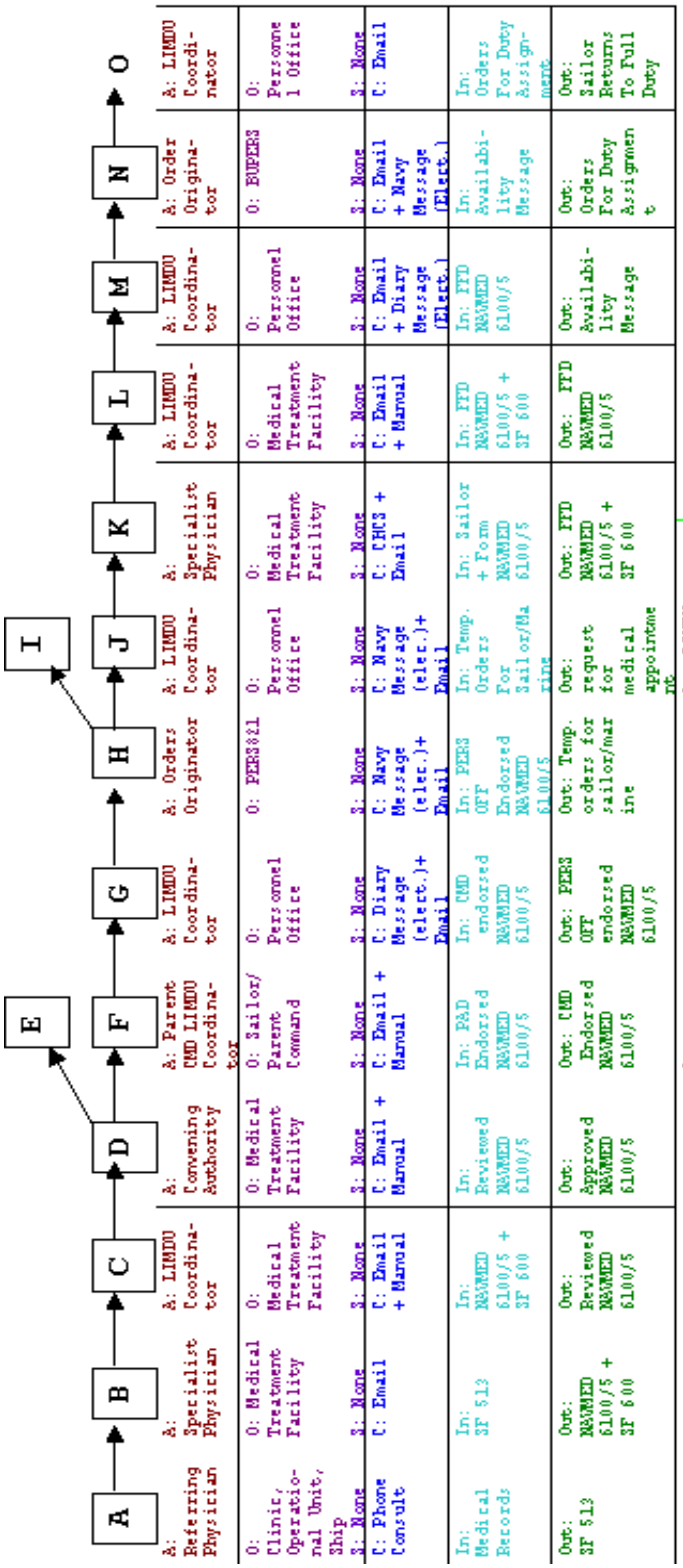


A: Referring Physician	A: Specialist Physician	A: LIMDU Coordinator	A: Convening Authority	A: Patient Administrator Officer	A: Parent CMD LIMDU Coordinator	A: LIMDU Coordinator	A: Orders Originator	A: LIMDU Coordinator
O: Clinic, Operational Unit, Ship S: None C: Phone Consult	O: Medical Treatment Facility S: None C: Phone	O: Medical Treatment Facility S: None C: Manual	O: Medical Treatment Facility S: None C: Manual	O: Medical Treatment Facility S: None C: Manual + Phone	O: Sailor Parent Command S: None C: Manual	O: Personnel Office S: None C: Diary Message (electronic) + Phone	O: EPMAC PERS-811 S: None C: Navy Message (electronic) + Phone	O: Personnel Office S: None C: Navy Message (electronic) + Phone
In: Medical Records	In: SF 513	In: NAVMED 6100/5 + SF 600	In: Reviewed NAVMED 6100/5	In: Approved NAVMED 6100/5	In: P&D Endorsed NAVMED 6100/5	In: CMD Endorsed NAVMED 6100/5	In: PERS OFF Endorsed NAVMED 6100/5	In: Temp. Orders For Sailor
Out: SF 513	Out: NAVMED 6100/5 + SF 600	Out: Reviewed NAVMED 6100/5	Out: Approved NAVMED 6100/5	Out: P&D Endorsed NAVMED 6100/5	Out: CMD Endorsed NAVMED 6100/5	Out: PERS OFF Endorsed NAVMED 6100/5	Out: Temp. Orders For Sailor/Marine	Out: Request For Medical Appointment

A: LIMDU Coordinator	A: LIMDU Coordinator	A: Specialist Physician	A: LIMDU Coordinator	A: LIMDU Coordinator	A: Order Originator	A: LIMDU Coordinator
O: Medical Treatment Facility	O: Personnel Office	O: Medical Treatment Facility	O: Medical Treatment Facility	O: Personnel Office	O: BUPERS	O: Personnel Office
S: None C: Navy Message + Phone	S: None C: Navy Message + Phone	S: None C: CHCS	S: None C: Phone + Guardmail	S: None C: Phone + Electronic Message	S: None C: Phone + Diary Message (Electronic)	S: None C: Phone
In: Request For Medical Appointment Out: Scheduled Medical Appointment	In: Scheduled Medical Appointment Out: Notification Of Medical Appointment	In: sailor + Form NAVMED 6100/5 + SF 600 Out: FFD NAVMED 6100/5 + SF 600	In: FFD NAVMED 6100/5 Out: FFD NAVMED 6100/5	In: FFD NAVMED 6100/5 Out: Availability Message	In: Availability For Duty Message Out: Orders Assignment	In: Orders For Duty Assignment Out: Sailor Returns To Full Duty

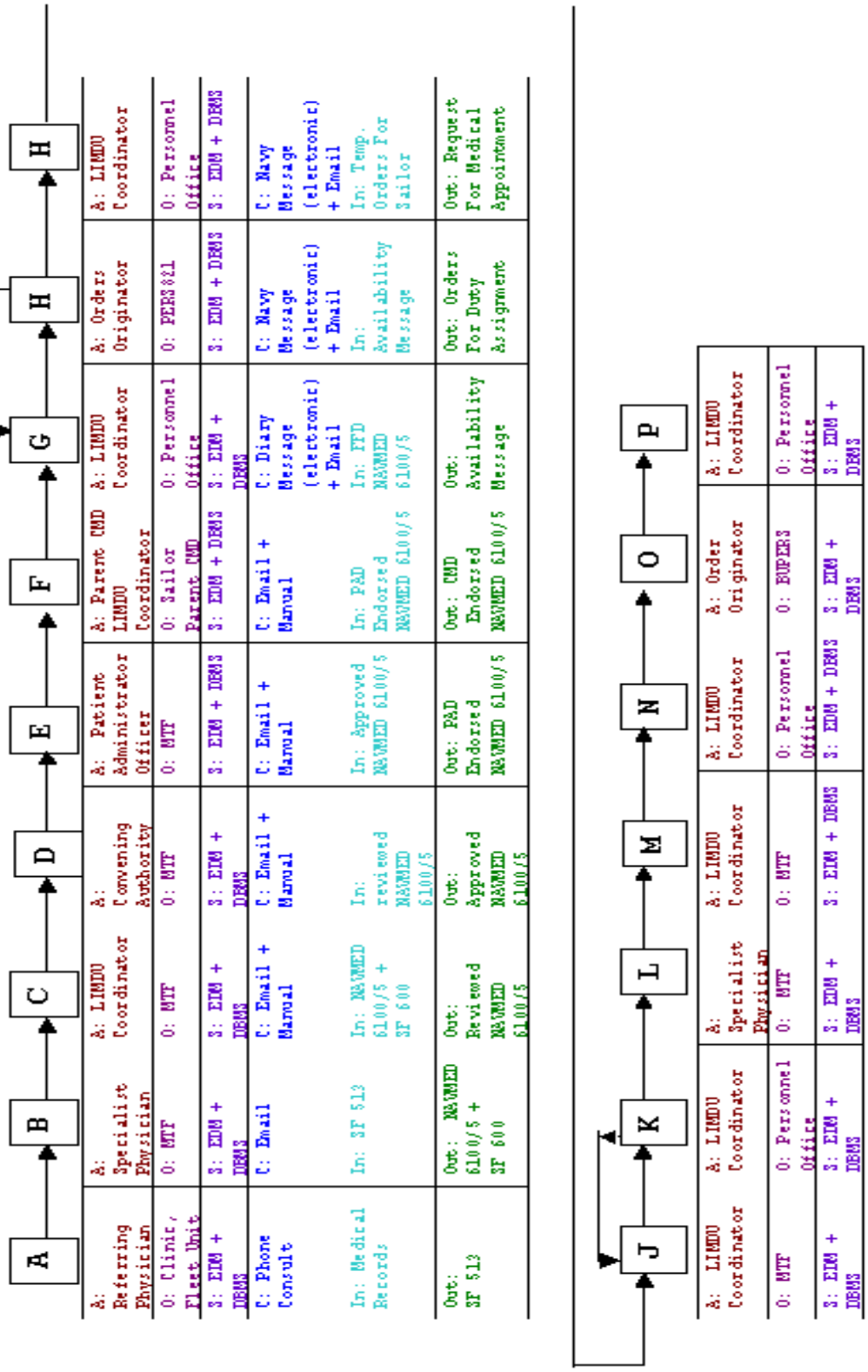
THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B. MODEL FOR REDESIGN ONE



THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX C. MODEL FOR REDESIGN TWO

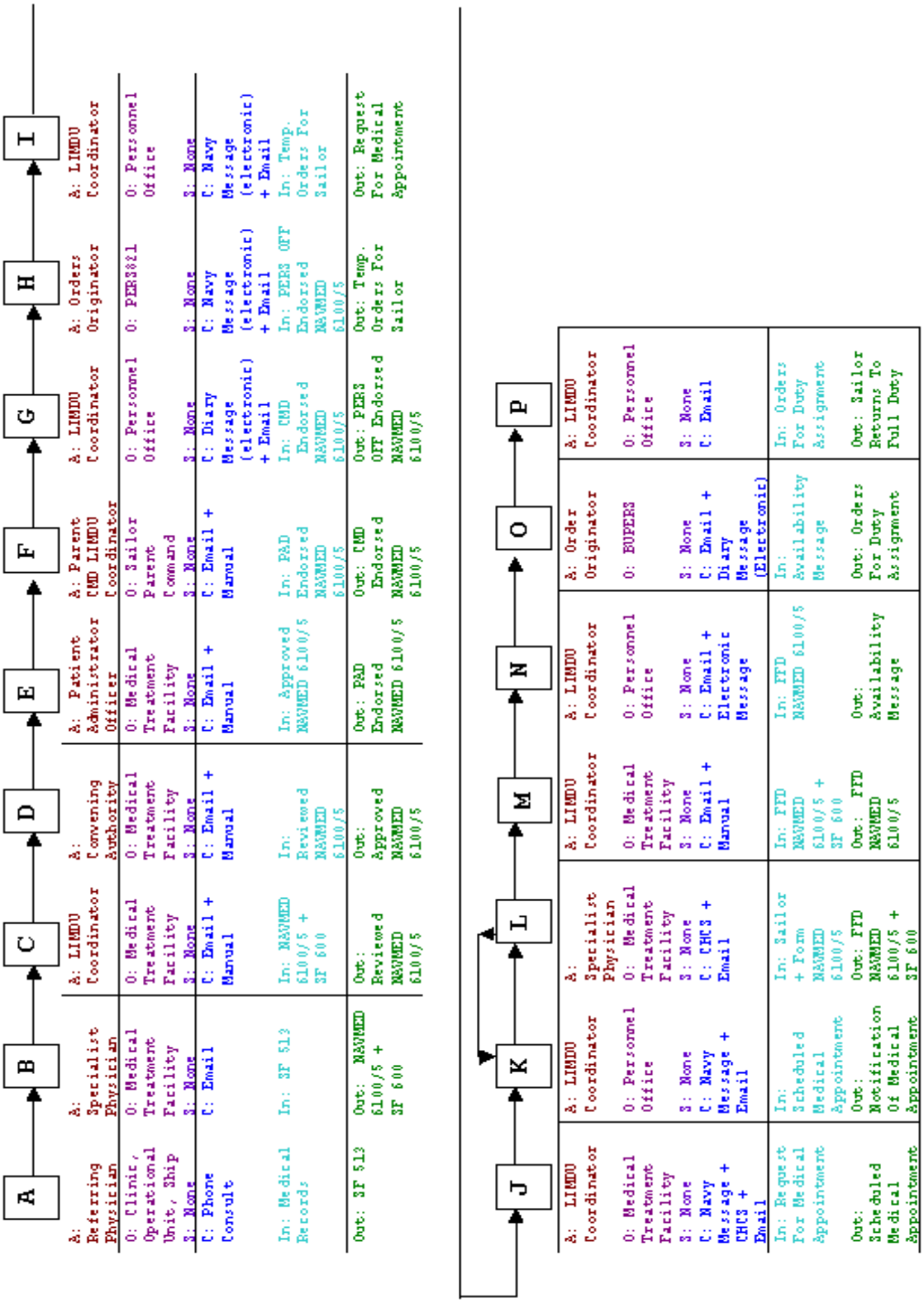


A: Referring Physician	A: Specialist Physician	A: LIMDU Coordinator	A: Convening Authority	A: Patient Administrator Officer	A: Parent CMD LIMDU Coordinator	A: LIMDU Coordinator	A: Orders Originator	A: LIMDU Coordinator
O: Clinic, Fleet Unit	O: MTF	O: MTF	O: MTF	O: MTF	O: Sailor Parent CMD	O: Personnel Office	O: PERS811	O: Personnel Office
S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS
C: Phone Consult	C: Email	C: Email + Manual	C: Email + Manual	C: Email + Manual	C: Email + Manual	C: Diary Message (electronic) + Email	C: Navy Message (electronic) + Email	C: Navy Message (electronic) + Email
In: Medical Records	In: SF 513	In: NAVMED 6100/5 + SF 600	In: reviewed NAVMED 6100/5	In: Approved NAVMED 6100/5	In: PAD Endorsed NAVMED 6100/5	In: FTD NAVMED 6100/5	In: Availability Message	In: Temp. Orders For Sailor
Out: SF 513	Out: NAVMED 6100/5 + SF 600	Out: Reviewed NAVMED 6100/5	Out: Approved NAVMED 6100/5	Out: PAD Endorsed NAVMED 6100/5	Out: CMD Endorsed NAVMED 6100/5	Out: Availability Message	Out: Orders For Duty Assignment	Out: Request For Medical Appointment

A: LIMDU Coordinator	A: LIMDU Coordinator	A: Specialist Physician	A: LIMDU Coordinator	A: LIMDU Coordinator	A: Order Originator	A: LIMDU Coordinator
O: MTF	O: Personnel Office	O: MTF	O: MTF	O: Personnel Office	O: BUPERS	O: Personnel Office
S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS	S: EDM + DEMS

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX D. MODEL FOR REDESIGN THREE



THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

Badnarz, Dan and Wood, Donna J., *Research in Teams, A Practical Guide to Group Policy Analysis*, Prentice-Hall, New Jersey, 1991.

Betts, Richard K., *Military Readiness Concepts, Choices, Consequences*, The Brookings Institute, Washington D.C., 1995.

Bureau of Medicine and Surgery, *Manual of the Medical Department (MANMED)*, NAVMED P-117, Medical Boards (Chapter 18).

Bureau of Naval Personnel, *Mission and Functions of Enlisted Placement Management Center (EPMAC), New Orleans, LA*, BUPERINST 5450.34C, 16 October 2000.

Bureau of Naval Personnel and Bureau of Medicine and Surgery, *Policy and Procedures Concerning Medical Holding Companies (MHCS)*, BUPERSINST/BUMEDINST 1306.72G, 26 November 2001.

Butler, Virginia L., and Molina, Valerie A., *Characterizing Sailor and Command Enlisted Placement and Assignment Preferences*, Master's Thesis, Naval Postgraduate School, Monterey, California, March 2002.

Clark, Vern (2002), "Top Five Priorities", Retrieved October 10, 2002 from CNO website on Top Five Priorities <http: www.chinfo.navy.mil/navupalib/cno/cno-top5.html>

Cowen, M.L., "Navy Surgeon General's Guidance for 2002: Steaming to Assist," www.bumed.navy.mil/surggen, December 2002.

Email correspondence between CDR Luka, BUMED, and the author 11 September 2002 to 20 March 2003.

Email correspondence between LT Wilsey, Department Head, Limited Duty and Disability Section, BUPERS (Pers-821) and the author, 02 May 2002.

Email correspondence between HMCM P. Quill, CNSP Medical and the author, February 2003.

Email correspondence between LT Boardway, MAO, USS Bohomme-Richard and the author, February 2003.

Email correspondence between LTJG Loyd, EPMAC (TPP&H Dept) and the author, November 2002 through February 2003.

Email correspondence between Mr. Pridgen, EPMAC (LIMDU) and the author, 25 November and 10 December 2002.

Email correspondence between LT Wallis, Patient Administration Department Head, Naval Hospital, Camp Pendleton and the 30 January 2003.

Email correspondence between LCDR Robert A. Rahal, Director, Patient Administration Course and Assistant Specialty Leader for Patient Administration and the author, January and February 2003.

Enlisted Placement Management Center, *Administration of Transient Personnel*, EPMACINST 5000.3D, and **www.epmac.nola.navy.mil**, January 2003.

Enlisted Transfer Manual, NAVPERS 15909G.

Hatch, William D., Manpower, Personnel & Training Brief, Naval Postgraduate School, Monterey, California, October 2001.

Kaplan, Robert S., and Norton, David P., *The Balanced Scorecard: Translating Strategy Into Action*, Harvard Business School Press, Boston, Massachusetts, 1996

Kaplan, Robert S., and Norton, David P., "What is a Balanced Scorecard," www.balancedscorecard.org, February 2003.

Keenan, M. Debra and Wilkins, Gail M., *Disability Evaluation System and Temporary Limited Duty Assignment Process: A Qualitative Review,* Masters Thesis, Naval Postgraduate School, Monterey, California, March 1998.

Logical Decisions for Windows (LDW), www.logicaldecisions.com, January 2003.

Long, Larry and Long, Nancy, *Computers*, Prentice Hall, New Jersey, 2001.

Marcum, C.Y. et al., *Methodology & Actions for Improving Performance of the Department of Defense Disability Evaluation System*, RAND, Santa Monica, CA

"Medical Boards." www.vnh.org/GMO/Admin/limduboard, November 2002.

"Military Healthcare System." www.ha.osd.mil/strat_plan, January 2003.

"Navy Medicine Strategic Plan," www.bumed.navy.mil, January 2003.

Navy Surgeon General, "Assumption of Office Speech," www.bumed.navy.mil, October 2002.

Nissen, Mark E., "A Focused Review of the Reengineering Literature: Expert Frequently Asked Questions," *QMJ*, no.3, pp.52-66, 1996.

Nissen, Mark E., "Redesigning Reengineering Through Measurement-Driven Inference," *MIS Quarterly*, pp. 509-534, December 1998.

Nissen, Mark E., Kamel, Magdi and Sengupta, Kishore, "Integrated Analysis and Design of Knowledge Systems and Processes," *Information Resources Management Journal*, pp. 24-43, January – March 2000.

Office of the Chief of Naval Operations, *Management of Pregnant Servicewomen*, OPNAVINST 6000.1A, 21 February 1989.

Roberts, N.C., "Organizational Configurations: Four Approaches to Public Sector Management," In J.L. Brudney, L.J. O'Toole, Jr., and H.G. Rainey, eds., *Advancing Public Management: New Developments in Theory, Methods, and* Practice. Washington D.C., Georgetown University Press, pp. 217-234, 2000.

Roberts, N.C., and King, P.J., "The Stakeholder Audit Goes Public, " *Organization Dynamics,* Winter, pp. 63-79. 1989.

Secretary of the Navy, *Department of the Navy (DON) Disability Evaluation Manual*, SECNAVINST 1850.4E, 30 April 02.

Short, Melissa, *Analysis of the Current Navy Enlisted Detailing Process,* Master's Thesis, Naval Postgraduate School, Monterey, California, December 2000.

Simon, C., Strategic Management Course, Naval Postgraduate School, Monterey, California, January 2003.

Telephone conversation and interview between LTJG Loyd, EPMAC (TPP&H) and the author, November 2002.

Telephone conversation and interview between Mr. Pridgen, EPMAC (LIMDU) and the author, November 2002.

Telephone conversation and interview between HMCM Quill, CNSP Medical and the author, February 2003.

Telephone conversation and interview between Mrs. Marilyn Vandel, Medical Boards/LIMDU Coordinator, Naval Hospital, Corpus Christi and the author, February 2003.

Telephone conversation and interview between Mr. Victor Panceria, Medical Boards, Naval Ambulatory Care Center, Groton and the author, February 2003.

Telephone conversation and interview between Medical Boards Coordinator, Naval Hospital, Jacksonville and the author, February 2003.

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
   Fort Belvoir, Virginia

2. Dudley Knox Library
   Naval Postgraduate School
   Monterey, California

3. Professor Stephen Mehay
   Naval Postgraduate School
   Monterey, California

4. Commander Bill Hatch, Code 347
   Naval Postgraduate School
   Monterey, California

5. VADM Gerry Hoewing
   Chief Of Naval Personnel
   Washington D.C.

6. RADM Shuford
   Bureau of Naval Personnel (Pers-4)
   Millington, Tennessee

7. RADM Cox (N12)
   2 Navy Annex
   Arlington, Virginia

8. RADM Henry
   2 Navy Annex
   Arlington, Virginia

9. Director
   Enlisted Placement Management Center (EP-48)
   New Orleans, Louisiana

10. Disability Retirements/Limited Duty Branch Head
    Bureau of Naval Personnel (Pers-821)
    Millington, Tennessee

11. Patient Administration Specialty Leader
    Bureau of Medicine and Surgery
    Washington D.C.

12. Captain Jack Smith
    Director of Clinical Program Policy Integration
    OASD (HA)
    Falls Church, VA

13. Commander Scott Jones
    Bureau of Medicine and Surgery
    Washington .D.C

14. Lieutenant Virginia Butler
    Naval Medical Information Management Center
    Bethesda, Maryland

15. Manpower/Personnel Specialty Leader
    Bureau of Medicine and Surgery
    Washington, D.C.